The Builder.

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ILLUSTRATIONS.

Pulpit, Santa Croce, Florence.—From a Drawing by Mr. W. Curtis Green ..... *Double-Page Photo-Litho.*
Technical Schools, Scarborough.—Messrs. Hall, Cooper, & Davis, Architects—
North Side and South Side ..... *Two Single-Page Tone Blocks.*
The Hall and Fireplace in Hall ..... *Two Single-Page Tone Blocks.*
Sculptured Panels.—Mr. H. C. Fehr, Sculptor ..... *One Double-Page Tone Block.*

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Art at the Glasgow Exhibition.

THE Exhibition is a real triumph for Glasgow. A few weeks ago we gave some description of the buildings, accompanied by some admirable sketches by Mr. A. McGibbon, made especially for our pages, and which will have given our readers some idea of the picturesque and original character of the Exhibition architecture, which, if it does not show all the extraordinary vigour and variety of invention of the Paris Exhibition buildings (for which, of course, there is hardly scope in the far more limited scheme of the Glasgow show), may be said on the other hand to have the virtue of more complete consistency of general style, and of presenting nothing anywhere that can be said to be in bad taste. But a walk through the Exhibition, by way of getting a general idea of its arrangement, leads to the further conclusion that no exhibition of the kind could have been better and more systematically arranged; indeed it may be doubted whether there has ever been one so well arranged. No space is lost, and there are no labyrinths; the whole gives the impression of having been carefully thought out from the first, and arranged on a comprehensive plan. One is struck also with the entire suitability of the construction everywhere, and the degree of original character which we find given even to such minor details as stall railings and barriers, which for the most part seem to have come under the influence of the prevailing spirit of the place.

Taking it as a whole, and considering the value and interest of the works of art collected, and the general artistic spirit which pervades it, it must be admitted that London has never had such an exhibition as is now to be seen at Glasgow.

The connexion of Messrs. Simpson & Allen's fine suite of art galleries with the Exhibition is of course a great point in its favour; this permanent building forms an architectural centre round which the whole exhibition is grouped; and this and the University building, standing on high ground on opposite sides of the little valley through which the Kelvin runs, form the two dominant features in the scene, and add very much to the general effect of the whole view as seen within the grounds. We may take the opportunity of bestowing a few words of appreciation on the art galleries building itself; a building such as one does not get into every day. Externally, with its fine stone and the reticent but judicious use of sculptural decoration, it gives a very satisfactory impression, which is increased when we make acquaintance with the interior. The plan, with its large hall at right angles with the larger axis of the building, and the side galleries opening from it symmetrically to right and left, is admirably adapted both for interior effect and for the distribution and grouping of works of art. The central hall rises in one height to the ceiling, but with an open gallery round it on the first floor level; and the side galleries occupy both ground and first floor levels, each with an open court in the centre with an arcaded gallery round, outside of which are the suites of rooms in which the various works of art are arranged and classified. Sculpture occupies the central spaces both in the central hall and in the side courts; pictures are arranged in suites of galleries on the first floor; the galleries of the ground floor are parcelled out for various classes of objects of artistic or archæological interest, of which we will speak in due course.

It is of course our natural duty to look first at the large collection of architectural drawings, which are arranged in the side galleries or bays on the ground floor in the east court. For some reason, these exhibits, though numbered in the catalogue, have not been numbered on the walls, but they nearly all have the title and architect's name appended in print. The Institute of British Architects has a bay to itself, containing objects specially lent for the occasion. These include the busts of Inigo Jones, Wren, Barry, and Street, placed at the four corners of the bay; Mr. Sargent's notable portrait of Mr. Penrose (one of the cleverest things he ever painted), the portraits of Cockerell and Scott, and various drawings of interest which are in the Institute collection. Among these are a sheet of drawings by Scamozzi; two views of the interior of Wren's Greek cross design for St. Paul's, as it should have been if built; an elaborate and well-known study of Donaldson's for a "Temple of Victory according to ancient usages"; and various drawings and designs by Inigo Jones. The present President of the Institute is suitably represented by his competition design for the completion of the South Kensington Museum, and the late Mr. Brydon by the large drawing of his intended circular court for the new Government offices, which we presume was selected and sent when there was no idea that it would have acquired an additional and melancholy interest from the death of the architect.

The remainder of the bays are filled with a very varied collection of drawings representing the work for the most part of living architects, and including many which we recognise as old friends and are glad to see again. In other cases we naturally come across drawings by Scottish architects with whose work we are not so familiar as with that of those who practise south of the Tweed. The next bay to the Institute exhibit is notable for some important ecclesiastical designs; Messrs. Austin & Paley's "St. George's, Stockport," shown in a grand drawing by Mr. Raffles Davison; Messrs. Jas. Brooks & Son's "St. Luke's, Enfield," which in its plain solidity of treatment forms an interesting contrast to the soaring character of Messrs. Austin & Paley's design; and Mr. Leonard Stokes' interior view of Miles Platting Church, which we remember very well at the Academy some little time ago, and which is one of the most original and powerfully treated of modern church interiors. The next bay is marked

by the model of Mr. Belcher's Colchester Town Hall tower, and a large perspective drawing of his design for the Eastern Telegraph offices. Mr. W. Flockhart exhibits his large view of a picturesque mansion called "Rosehaugh," and there are interiors by Messrs. Ernest George and L. Peto and Mr. Baillie Scott, and one of the best drawings of Mr. Arnold Mitchell, a design for a Municipal museum, which some of our readers will remember. We draw attention, however, to some exhibits by the Glasgow brethren; Mr. Honeyman's warehouse in Sauchiehall-street, a narrow front in which sculptural decoration has been very well applied, and which terminates with a gilded cupola (the actual building looks even better than the drawing); and a very peculiar drawing of the *Daily Record* office, by the same architect; this is shown in very sharp perspective, and looks nearly all white and blue; apparently the introduction of some blue glazed facing bricks is actually intended at the upper portion of the ground story; in the rest of the drawing all the shadows are put in blue; the effect is odd enough, but the whole is certainly an original effort in architectural illustration. In the succeeding bay Mr. J. J. Burnet shows photographs of the Gardner memorial church, hardly the best thing he has done—it is in a rather heavy type of quasi-Scotch Gothic. A drawing of the Scottish Legal Life Assurance buildings, by Mr. Skirving, recalls the time when Glasgow cultivated a neo-Greek style, which was then supposed (in Glasgow) to be the thing for giving life and high artistic character to modern architecture, and in which some most admirable buildings were carried out; but it has nevertheless had its day, and is not likely to be revived. The name of Mr. Jas. Salmon is appended to some characteristic interiors, and to a watercolour view of a "Marine Hotel at Troon," which has the merit of looking very unlike the usual florid type of hotel architecture, and is a really pleasing building in a quiet Gothic style.

Crossing over to the south side of the court, we find in the corresponding bay opposite Mr. Brydon's exterior perspective of the Government Offices, and Mr. Clifford's first premiated design for the Glasgow Royal Infirmary (illustrated in the *Builder* of February 2); and in this bay is also to be found a large exhibit in the round for the "treatment of the end of a room," though whether this is the actual work itself or an imitative reduction of it we do not quite gather; if it is the actual work its title should be "treatment at the end of a room," as it could not occupy the whole end. It is a curious affair, and we presume represents the taste of the latest school of applied art in Glasgow. There is a fireplace and a lofty over-decoration in hammered brass of a type of design which we should call the "ostentatiously naïve," where there is not a line or an angle correct, but all seems as if it had been done by accident; this hammered brass-work mounts aloft and finishes in a clock which strikes the hours on a visible square bell of the sheep-bell type, and into the space above the fireplace is inserted a tile Mosaic figure designed by Mr. Stephen Adam. The brasswork is by the "Holland House Electrical Manufacturing Company." This brass erection is relieved against a mass of dark mottled marble, dished outward on plan, and cut across, two-thirds up, by an alto-relief plaster frieze modelled by Mr. A. Hodge (who has done so much of the sculture decoration of the exhibition), and having the appearance of going behind the brass work and reappearing at the other side. This is an effective piece of work, and there can be no doubt of its novelty of character, but it is rather too odd, and represents a taste (in the treatment of the brass work at least) which can hardly take a permanent hold. Eccentric also is Mr. Edgar Wood's large drawing in the same bay, of a church interior, in thick heavy black ink line, and showing a church with rubble walls, a ponderous framed timber roof, and angels seated on the wooden corbels. This looks curiously like an old drawing, and is original in that sense, but we should say the executed building would have a rather crude and semi-barbarous effect, like the drawing.

In the next bay is Messrs. Sydney Mitchell & Wilson's drawing of Craig House Asylum for the Insane, a very picturesque group, but with no plan, which is imperative for such a class of building. Their Commercial Bank buildings, Edinburgh, is a powerful and remarkable example of street architecture, with deeply-recessed and boldly-moulded window arches, a parapet standing far out beyond the wall line on very boldly-treated corbelling, and a large circular angle turret corbelled out from the building in the manner which is so peculiarly characteristic of Scottish architecture. There is nothing tame about this building, at all events, and at the same time it is worked out carefully and logically. In the same bay are several of the most striking of Mr. H. Wilson's large architectural drawings, displaying such a mastery of water-colour effect and such inventive fancy, which have from time to time appeared on the walls of the architectural room at the Royal Academy. Logic is the quality which these want; it is difficult to make out what plan or construction is intended for most of them, and the author seems to feel this himself, inasmuch as he has declined to give any titles to them in the catalogue, beyond the general statement that they are architectural drawings. Nevertheless, they are efforts of genius in imaginative architectural effect, and show the hand of a master in the treatment of watercolour, and as such one is always glad to see them; if not constructional, they are at all events suggestive.

An old drawing of the Glasgow Public Hall, by the late Mr. Campbell Douglas and the late Mr. J. Cuningham, of Liverpool, jointly, is an interesting example of old Glasgow taste in classic architecture, a good thing of its kind, and reminding us pleasantly of something that is gone. The late Mr. Young's two drawings of the Staircase of Glasgow Municipal Buildings are here—Classic with a fresher feeling about it; and in the same bay a number of small illustrations of work by Mr. W. Leiper, which will be found of considerable interest, especially his coloured elevation drawings for the decoration of the walls and ceiling of a banqueting-hall, which is an admirable piece of decorative work. The large photograph of his Sun Insurance buildings bears on its frame the label "Médaille d'Argent," so that it has obviously obtained recognition across the Channel. Mr. Rowand Anderson shows a number of photographs of his executed works (the three monuments to Montrose, Inglis, and Findlay, make a very interesting frame). In the next bay is an original and interesting piece of modern Classic design in the shape of a drawing of Govan Town Hall, designed by Messrs. Thomson & Sandilands; a building very well and effectively grouped, and shown in a fine and freely-handled pen drawing. In the last bay we notice Mr. J. J. Burnet's photographs of Rachan House interiors, also his Public Baths at Alloa, very simply treated, but the long low building stopped by a higher block at the end has its effect nevertheless.

Yet though this is an interesting and varied collection of drawings, one cannot but be struck with the difference when we look at the small collection of French architectural designs which are in the first floor gallery at the south end of the large hall. Here, instead of perspective drawings, we have large-scale elevations and plans. There are those of the New Sorbonne, lent by M. Nénot, and which illustrate the planning and design of one of the largest and most complicated of modern buildings. There are also the plans and a very large-scale elevation of M. Dourgnon's design for the Cairo Museum, the plan of which, very simple in conception, seems very well suited to its purpose, consisting of a central long hall with a series of smaller colonnaded halls opening out of it on the right and left, intended for the classification of exhibits; the whole surrounded by a "galerie de circulation" running all round the building. The elevation is not what one would wish; it is academical French treatment of Roman architecture; the architect might surely have given some suggestion of Egyptian influence or association in the design. There is also a beautiful set of large drawings of antique detail, by M. Henri Eustache, a Villa Medici student, and a fine monochrome drawing of the courtyard façade of the Pitti Palace. Near the end of this gallery is the small architectural show of the United States architects, who for their part have not thought it worth while to do more than send a frame of small photographs of buildings, with a reference list of their names and purposes a very amateur way of illustrating architecture.

We may devote the remainder of this article to further remarks on the contents of the Art Galleries, which form a department by themselves in the Exhibition, with a separate catalogue, and which comprise a very fine and indeed remarkable collection of art and antiquities; remarkable not so much for its extent (though that is considerable) as for the variety it displays, and the excellent judgment which seems to have been used in getting it together. The sculpture is of course arranged on the ground floor, in the central hall and in the east and west courts; most of the works are known to those of our readers who are interested in English sculpture, and have been commented on before, and many of them illustrated, in our pages, so that it is unnecessary to criticise them over again. We may mention among well-known works that are present Mr. Onslow Ford's Shelley Monument; Mr. Gilbert's Jubilee Trophy and his beautiful "Perseus Arming," Mr. Stirling Lee's "Dawn of Womanhood," Mr. Pegram's "Fortune," Mr. Lucchesi's

"Oblivion" and other figures by him; Mr. Onslow Ford's "Echo"; Mr. Pomeroy's admirable figure "The Potter, Mr. Mullins's "Cain," and Mr. Colton's "Hyde Park Fountain; and many others, forming a very good representation of the present state of English sculpture. There are two or three French works by M. Rodin; his "John the Baptist," in which one is glad for once to see a finished work by this artist, who has lately preferred to leave his work in a fragmentary or half-finished state; this is a fine work, and there is a desire that it should be secured for Glasgow. There is also another powerful figure by M. Rodin, "Un Bourgeois de Calais," who from his costume and the key that he holds is evidently meant to represent one of those unfortunate burghers of Calais who were made to come out and humble themselves before Edward III.; this is a fine and robust work. M. Saint Marceaux's "Première Communion," which also we do not remember to have seen before, is worth remark as a fine and feeling treatment of a religious subject in sculpture.

Pictures are arranged in the first-floor galleries surrounding the east and west courts; two long galleries and one small one are devoted to living British oil-painters, and the same space to those deceased; a long gallery and a small one are given to British water-colour artists, one long gallery to foreign oil-paintings, and one small one to foreign water-colours. A single gallery seems certainly a small provision for representing foreign painters in oil, and of course no figure subjects of great size or of the first importance are there, as there could not be room for them, foreign painters generally occupying larger canvases for this class of work than we do. Yet this one gallery is full of interest, it contains so many small works by remarkable and original painters. There are some very fine Corots; one of the largest and finest we have seen by Diaz (of whom there are several examples); several very fine specimens of Troyon's landscape and cattle scenes; a splendidly built-up forest scene by Rousseau, in his finest manner; two Mauves without a sheep in them (!), and admirable pictures nevertheless; several very good examples of the varied but not always satisfactory art of Maris; and some evidently early works by Millet which are of considerable interest. There is also a fine landscape by M. Harpignies, and an exceptionally good example of Daubigny. What we complain of in the selection is that there are too many examples of Monticelli, an eccentric and irritating painter who does not represent the best paths of art.

The room of foreign water-colours ought to be of interest, also, from the very fact that it represents a kind of art so different from most of English water-colour. There is less finish, far less captivation of colour; but there is perhaps a more distinct intellectual *motif* in these comparatively grey drawings than we should be likely to find in an equally representative collection of British work. The collection is mainly Dutch, including such names as Mauve, Blommers, Neuhys, Artz, Israels, Mollinger (who appears to be a kind of Dutch Boyce), Ter Meulen, and others. There are a few French works, among which is a curious pastel by Millet, "The Sheep Fold," a moonlight scene in which the moon really seems to shine with a luminous effect.

The collection of works of living British artists contains of course a great many well-known works, including some of exceptional interest, which one is always glad to have a fresh opportunity of seeing. We can only mention, among the more important of these works of first-class interest, Mr. Holman Hunt's "Strayed Sheep" and "Christ in the Temple"; Sir L. Alma-Tadema's "The End of a Joyful Day" and "Thou Rose of all the Roses"; Mr. Fildes's "Village Wedding"; Mr. Orchardson's "Hard Hit!" Mr. Abbey's "Trial of Queen Katherine," and Sir E. Poynter's "The Greek Dance"; Mr. Holman Hunt's "Awakened Conscience"; Mr. Watts's "Orpheus and Eurydice"; and Mr. Brett's truly remarkable early work (which we had forgotten), "The Stone-breaker," a painting essentially "pre-Raphaelite" in character, and of a finish and minuteness of execution which even Mr. Holman Hunt has not surpassed. Among Sir Noel Paton's hard and gaudily-coloured paintings that called "The Bludie Tryst," a picture painted many years ago, is a work of some tragic power; Sir George Reid has some exceedingly fine portraits; and there are some landscapes and seapieces by members of the Scottish Academy whose names are less familiar, and which hold their place admirably; more particularly Mr. McTaggart's "The Storm" and "Over the Harbour Bar;" Mr. Paterson's "Edinburgh" with a deserted quarry as a foreground; Mr. Henderson's "A Fresh Breeze," and Mr. Beattie Brown's "A Lonely Cot."

The collection, however, of deceased British artists surpasses the other in interest, and reminds one of some reputations nearly forgotten, on this side of the Tweed at any rate. The very first work hung, "Garleton Tower," by the Rev. John Thomson (Thomson of Duddingston), though sadly cracked, is sufficient to show what a really great landscape-painter Scotland possessed in this clerical amateur. All the landscapes bearing the name of Sam Bough are fine; we have seen a complaint somewhere that too many of his were hung, but they are all worth recognition. Few people in England know the name of Tonge, but they will find everything with that name worth looking at. Alexander Fraser is another deceased Scottish painter of great power; witness his picture called "The Margin of the Forest." Milne Donald is the name of a landscape-painter whom we do not remember, but who was no ordinary artist; also James Docharty; also G. P. Chalmers, whose beautiful work "The End of the Harvest," with the evening sky making level lines behind the tree stems, reminds us of some of the best of a living French landscape-painter, M. Lamy. Among other remarkable landscapes is Müller's grand work, "Eel Bucks at Goring," in which, for power and freedom of style, he has almost surpassed his more celebrated contemporary and friend, Constable. Prominent also among landscapes are Poole's "The Dragon's Cavern," David Cox's "Changing Pasture," Turner's "Mercury and Argus," "Linnell's "Vale of Dolwyddelan," Henry Moore's "St. Albans Race," and Alfred Hunt's "Dunstanborough." Some small examples of Etty and William Dyce remind us pleasantly, in very different styles, of two painters once more celebrated than they are now. Wilkie's "Village Politicians" and "Letter of Introduction" are to be seen—the latter one of the best and most complete things he ever painted. The "Ploughing Match" by Wm. Davis, reminds us of a gifted and conscientious artist who merited better recognition than he met with in his life time. Among the important works of more recent date or better known to fame will be found Millais' "Carpenter's Shop" and "Chill October," Leighton's "Hercules and Death," Millais' "Autumn Leaves," and Rossetti's "Mariana." The collection is indeed one of no ordinary interest.

The south-west gallery is devoted to a most interesting collection of memorials of old Glasgow. Here again Sam Bough is at once topographically careful and artistically fine in his views of "Stockwell Bridge" and "Broomielaw Bridge." Among the interesting relics is the cylinder of the engine of the *Comet*, the first steamer which plied on the Clyde; a cast-iron cylinder about 2 ft. high and 1 ft. diameter. Spinning-wheels in excellent preservation; some old silver Highland plaid brooches; a rams-horn "sneeshing-mull" with a hand-painted miniature in a panel on the top; some fine examples of old Scottish hall-marked silver, perfectly plain but excellent in shape—especially a large punch-bowl with wavy margin, lent by the earl of Breadalbane; these are among the curiosities of this collection,

In the East Gallery is a collection of loan objects, mostly of ancient art. Case L contains two of special interest. One of these is a small circular personal ornament of enamelled gold, enclosing a coloured alto-relief of the adoration of the Magi. This is a most curious little bit of work, lent by Sir T. Gibson-Carmichael, said to be Venetian of the date of 1480. A square silver casket lent by Lord Malcolm of Poltalloch, of French make and probably late seventeenth century, is interesting from its refined semi-architectural treatment; it is divided into bays by playfully treated pilasters, in a form suited to metal work, with panels between enclosing little bas-relief figures. In the small square gallery at south-east angle of the building is the highly creditable work of the Glasgow School of Art students; in the corresponding gallery at the north-east angle are some examples of modern decorative work. Among these is a fine electric light stand in cast silver, by Mr. Alexander Fisher; a stem and table something like the most usual type of sun-dial, with a glass canopy carried on four light shafts above, and under this a nude figure standing on a crystal sphere, and pointing upwards to the light under the glazed dome. A large exhibit against the wall, as to which there is no explanation in the catalogue and no label, is of some interest; it evidently represents one of the latest ideas in Glasgow for a street entry; the lower portion of the opening is flanked by plain black marble jambs with a white marble corbel at the top, from which spring the lines of the wooden erection over it ending in a cornice; over the doorway, on a large repoussé circular plaque of gilt metal, the number "12" is shown in two ways, one for daytime, the other to show at night as a perforated figure in Roman numerals, with a light behind it. This design is, we presume, another example of up-to-date applied art in Glasgow; and if a little eccentric, it is certainly effective and original.

NOTES.

The Liverpool Cathedral Question.

AN article in the *Liverpool Courier* on this subject last week, in favour of the St. James's Mount site for the Liverpool Cathedral, is headed by a plan of the site, showing the ground plan of Mr. Emerson's design as placed on the site. This plan is at once the strongest possible condemnation of the site on architectural grounds. It shows the cathedral with its side facing down hill towards the principal street adjoining, and its east and west ends facing nothing whatever. A cathedral facing downhill eastward or westward may have a fine effect; one facing downhill sideways has the worst possible effect. No one with a feeling for architectural position and alignment of a large building could ever have recommended such a situation. On architectural grounds, at all events, it will be a complete mistake.

A Note on Cyprus.

SOME little effort is being made by the Society for the Protection of Ancient Buildings to preserve the singularly interesting remains of the city of Famagusta (the city still retains its ancient walls, cathedral, several churches, &c.), about which there was a considerable correspondence in the *Times* more than a year ago. It is to be hoped this marvellously preserved relic of the Middle Ages may escape its threatened fate, and be preserved for future ages in the way in which Carcassone has been set apart by the French Government as a national monument. M. Eulart, the author of the great work on Cyprus Mediæval art, is at present in the island, engaged on a further study and report as to the condition of the antiquities, which seem to arouse more interest in France than in England, although the island has always had an interest for Englishmen ever since Richard I. conquered it and introduced Western civilisation in the twelfth century.

The Thames Conservancy and Sanitation.

THE most satisfactory part of the recently-published annual Report of the Thames Conservancy is that which relates to the sanitation of the districts adjoining the Thames or its tributary streams. That the Thames Conservancy should become a superintending Sanitary Authority for a large district is one of the most curious things in the history of sanitary progress in England. But having had the power conferred on it by the Legislature to keep the Thames and its tributaries from being polluted, it has been enabled to bring great pressure to bear on the Local Authorities who are responsible for the sanitary condition of the districts which are drained by the Thames and its tributary streams. The Conservancy has not hesitated to use the powers entrusted to it, and to put the law in force against the Local Authorities through whose omissions or commission any stream which feeds the Thames is polluted. The result has been a great and continuous improvement in the sanitary condition of the watershed of the Thames Local Authorities have found that they had no option but to formulate and carry out schemes for the sanitary improvement of the places under their jurisdiction. That in so doing the Thames Conservancy has had a direct influence which was never for a moment expected goes without saying. But the successful action of the Conservancy shows that County Councils should be armed with the power of compelling the smaller Sanitary Authorities to execute necessary works. In many instances some kind of compulsion is the only means of inducing Local Authorities to carry out their duties.

Municipal Trading.

IT will be remembered that a Committee of the House of Commons was appointed last session to inquire into the subject of municipal trading. It did not complete its inquiries, but it has not been reappointed. As we pointed out last year, the report of a committee of this kind cannot alter the state of affairs. Municipal trading will extend if the ratepayers and Parliament as a body sanction such extension. The limit of this extension will be put by the commonsense of the community. It is impossible, as was said before, to formulate with precision any definition of legitimate municipal trading. But as soon as municipal corporations begin to carry on enterprises which are not for the benefit of the public at large, then we may expect to see the ratepayers and Parliament put a veto on their work. For the moment a kind of languid interest in this respect has made its appearance, but the fact that last session's Committee was not reappointed shows pretty conclusively that the Government is not impressed with the opposition to municipal trading. For the opposition comes largely from powerful trading companies who are anxious to obtain monopolies in electric enterprises and locomotion. The ordinary citizen is inclined to think he would be as well off if his municipality managed these matters as a company whose main object is dividend. We expect therefore not to hear much more of the bugbear of municipal trading.

Electric Lighting in Dublin.

IN the "Journal" of the Institution of Electrical Engineers just issued there is an abstract of a paper by Mr. Robert Hammond describing the Dublin Corporation electric light scheme. The paper was read nearly a year ago before the Dublin local section of the Institution, and it seems a pity that it was not published earlier. Mr. Hammond's scheme is so novel and his exposition of it so clear, that it is a distinct loss to the profession that this paper has been so long overlooked. The electricity works are being built on Pigeon House Fort, an island in Dublin Bay, where land is cheap and there are no troublesome neighbours. The system of supply is to be three-phase alternating current, which can be used for either lighting or power purposes. Mr. Hammond's scheme has been subjected to a great deal of severe criticism, most of which comes from those interested in the Dublin Southern Tramway Company, which fears a powerful rival. Three cables, each containing three conductors, will connect the new station on the island with the old station in Fleet-street, a distance of about three miles. The pressure used will be 5,000 volts, and it will be distributed at this pressure to the nineteen sub-stations, where it will be reduced to 240 volts for consumers. Since the station is on an island, cheap coal can be delivered from shipboard, and unlimited water for condensing can be pumped direct from the sea. Mr. Hammond has arranged most ingeniously for utilising as much of the old plant as possible, and as the frequency of the new alternating current is low, the operation of motors from the mains will be much more satisfactory. The public arc lighting will be done by 500 lamps, which will be run on a circuit of their own. Altogether the scheme is most promising, as the initial capital expenditure has been small and there seems every reason to expect that the subsequent working expenses will be small also.

The Lowther Arcade, Strand.

WE understand that the proprietors of Coutts's Bank have purchased the Crown lease of Lowther Arcade, which was placed in the market three years ago by the trustees under the will of the late Mr. William Bird, and was withdrawn from the sale at auction at 30,000*l.* The Arcade, measuring 245 ft. long and 35 ft. high, and being lighted by a roof glazed with small domes carried by pendentives, was—together with the old Adelaide Gallery along its north side—erected after the plans and designs of Witherden Young, as a part of the extensive improvements effected in that portion of the Strand, the "Bermudas," "Porridge Island," and the neighbourhood of the church of St. Martin-in-the-Fields, in 1829-31, in pursuance of the Act 7 George IV., c. 77—Lord Lowther being Chief Commissioner of Woods and Forests at that time. W. C. Mylne acted as valuer on behalf of the Government, and Decimus Burton was architect of part of the new buildings in the West Strand quarter. The original Arcade had twenty-five shops, with six in West Strand and Adelaide-street, covering a total area of about 16,000 ft. superficial, and is held, under one lease of which 28½ years are still unexpired, at a ground-rent of 1,270*l.* per annum.

Lincoln's Inn-fields and the New Street.

IT is stated that for the development of their High Holborn to the Strand improvement scheme the London County Council have already acquired, and will at no distant date clear, the site of Nos. 57-58, on the west side of Lincoln's Inn-fields. The house is distinguished by a balustrade and cornice, a rusticated base, and a semi-circular portico with Doric fluted columns upon a rounded flight of steps. It is one of a block formerly known as Arch or West row, which was designed by Inigo Jones, and is depicted in the oil-colour painting cited as being at Wilton in Cunningham's "Life of Inigo Jones." But whereas the elevation has six Ionic pilasters carried up the upper floors of its front, the façade, built of stone, is apparently of a date somewhat later than Inigo Jones's day. John Forster occupied chambers in the northern half—now numbered "58"—of the house, wherein his rooms have been identified with those of Tulkinghorn, as described in "Bleak House."

Sutton Place, Guildford.

THE very fine old mansion, Sutton Place, near Guildford, was erected 1520-30 by Sir Richard Weston. The main fronts are built of terra-cotta and red brick. The bay windows, entrance doorways, parapets, and buttresses are elaborately enriched. The interior is as fine as the exterior; the great hall, staircase, and long gallery are all

panelled in oak. The rooms under the Long Gallery are, we are informed, to be decorated or restored; it is to be hoped that this work will be very carefully done, and under proper architectural direction, and in harmony and keeping with that existing, or this fine relic of the old times may suffer considerably. The house is illustrated in Nash's "Mansions."

The Fine Art Society's Gallery.

THE exhibition at the Fine Art Society's Gallery, now open, consists of a collection of water-colour drawings of the Holy Land and Egypt by the late Mr. Henry A. Harper. The collection is remarkable in being almost entirely composed of the original drawings made upon the artist's first visit to the East; since then Mr. Harper occupied a unique position as a delineator of that fascinating country. Considering the nature of the exhibition, it is not surprising that there are a great number of sketches that ought never to have been publicly exhibited. It must take more than one visit to catch the evanescent character of the many and changing aspects of the East. The most important drawing is that of Karnak, the Hall of Columns, a work of great imagination and power; it is full of subdued light and delicate colour, nothing being introduced to spoil the harmony and grandeur of the great vista of columns. Except for this drawing, the exhibits of interest are among the smaller sketches, such as the Great Market Place at Hebron and the "Es Sakhrah," the Holy Rock in the Mosque of Omar, Jerusalem. No medium other than colour can adequately represent the architecture of the East or the charm of form and colour of the gaily dressed people. The drawing of the Great Market Place at Hebron has caught the peculiarities of the Eastern atmosphere. The cool dark market place with its mysterious shadows and flitting Arabs, while beyond, under the blazing sun, is a glimpse of the white walls and dome of a mosque. "Bedouin and Camels" is another aspect of sky and sunlight, the man and animals strongly drawn. Another sketch of interest is "A Bit of Old Blue," dyeing native stuffs in Damascus Perhaps the best figure subject is that entitled "In the Bazaars, Jerusalem,' which is superior to most of the early figure subjects here exhibited.

ARCHITECTURE AT THE ROYAL ACADEMY.—IV.

THE examples of decorative design in the architectural room this year are not numerous nor for the most part important. The two principal ones are hung at opposite ends of the room, and are both on too small a scale to be very well estimated in the position in which they are placed. One of these is a small model of a half dome, showing the design for the mosaic decoration of the dome at Giggleswick school chapel, by Mr. Geo. Murray (1,570). It is hung high up above the line of drawings, and the detail cannot be properly seen. The lower portion of the dome, for rather more than half the height, is occupied by figures of angels with their wings outspread and crossed, arranged in a decorative manner, but not with the stiffness and symmetry of outline which would be found, for instance, in a Byzantine decoration of similar class. One is not certain whether figures of angels arranged in this manner do not rather require that conventional stiffness of treatment, if they are arranged as symmetrical repetitions; whether these figures are not a little too free in line for the kind of treatment adopted. Each figure rises from, or takes a stand on, some object of a dark colour the nature of which—whether a scroll or a cloud, or what—cannot be quite made out, and the effect is rather ragged, and as if they were standing on footstools. This portion of the dome has a gold ground between the figures; above this the ground is dark blue, with a collection of cherubs with nimbi round the base of the lantern, and at the base of the blue portion what appears to be a collection of birds in flight round the dome in the same horizontal direction. This is a pretty idea, and the general decorative effect of the whole promises well. At the opposite end of the room is hung Mr. Gryll's drawing of the design for the memorial window to the late Duke of Westminster, to fill the whole of the south transept end at Westminster Abbey (1,653). This is a coloured drawing of the stained glass lights, either in body-colour or inserted in cuts made in a very dark paper, so as to give as luminous an effect as possible to the colour. This is a good way of showing a window design on paper, and the general effect is rich and harmonious, but the drawing is a comparatively small one for the extent and elaboration of the design, and it is impossible, as it is hung, to make out anything of the detail. A design of such importance in regard to its effect on the Abbey should have been hung so that one could examine it better.

The other stained glass designs are mostly small windows of single figures. Mr. Leonard Walker's "Design for Stained Glass" (1,587) shows a draped figure with no architectural accessories, depending for effect simply on the design and drapery of the figure, which is rich in colour and in a freer style than is usual in stained glass work of the day; some patches of blue which seem to represent sky above and water at the feet of the figure serve as a colour contrast. This is a very nice little drawing. Mr. Percy Hammond's "Design for Stained Glass Window—St. Nicholas" (1,634) is in the more usual quasi-mediæval style of modern stained glass; the figure, wearing a mitre, is clad in robes picked out with bits of rather delicate decorative detail, and relieved by a richly coloured drapery inserted as if hung behind the figure; the face is finely treated. The whole is surrounded with architectural detail and canopy work in white glass, of rather a heavy and lumpy kind of detail, looking like bad mediæval work.

Mr. Jas. C. Powell's "East Window, Immanuelskirche, Frankfort" (1,637) is a design on a very small scale for a large window of five lancet lights. The drawing is minute and carefully finished, and the character of the design is rather out of the common. Figure subjects form the dominating feature, but instead of being based on hard architectural pedestals and surrounded by imitation architectural detail, the figures are interwoven with a flowing scroll design, not symmetrical in line, and completely flat in character. This is much more in accordance with the true æsthetic requirements of stained-glass design than what we generally see, and merits recognition on that account. Mr. Arthur S. McNairn, in his "Design for Stained Glass" (1,662) has also got a rather new idea, composing the design of his three lights entirely of flowers and leaves; a pretty idea, and the colour effect is good, but the upright stems, with their twists and knots, are too realistic, and should have been conventionalised into a more decorative semblance; nevertheless, there is merit in this design. As the strongest possible contrast to this we have in the next drawing, "Design for Stained Glass Window, St. Peter's Church, Bayswater" (1,663), by Mr. Arthur J. Dix, the ordinary conventional treatment of a Renaissance architrave and broken pediment in white glass with yellow ornamental features; it is well and carefully done, and we presume that the style of church requires this style of treatment, or is supposed to do so; but somehow the more richly coloured picture of the Crucifixion, within this framework, gives one a kind of shock, it seems so out of keeping with its decorative surroundings. Mr. J. D. Forsyth's "Design for a Stained Glass Window" (1,668) is rather in the style of fresco than stained glass; a small drawing showing a figure of a woman—perhaps representing "Charity"—with a green drapery and accompanied by two nude children, another small nude figure is seated above in a separate compartment of the design; it is graceful as a whole, but suggests the idea of a design to be painted *on* glass rather than one put together out of glass with the colour inherent in it, which is the true stained glass art. Mr. Lavers' "Design for a Stained Glass Window" (1,670), hung as a pendant to this, shows exactly the opposite principle of treatment, all the design being distinctly flat and conventional in character, and such as is especially suggestive of glass. The window contains a figure of St. Paul, the head and shoulders of which are thrown out by being relieved against a rich crimson patch filling the ogee arch of the ground; above this, as well as below the figure, is a form of ornament consisting of a blue tinted scroll design with the spaces between left white; on paper it rather suggests a metal grille, but might not do so in execution in glass; the whole would form a good and rather unusual window design.

Of decorative designs other than glass, a rather important one is shown by a sculptor; Mr. Thornycroft's design (1,555) for the bronze canopy which is to enshrine, when in position, his group forming the Dean Colet memorial to be erected at St. Paul's School, West Kensington. This is exhibited under Mr. Thornycroft's name, and is, therefore, we presume, his design—possibly his own drawing. We fear it is only one more example of the fact that sculptors, whatever sympathy they may have with architecture in a theoretical sense, rarely understand how to handle architectural detail; certainly most of the detail here is exceedingly bad. The canopy is carried on thin, square, upright rods, coupled, each of which expands at the top into a large kind of cabbage leaf which supports, or rather does not support but finishes underneath a small shrine, with which it has no proper architectural connexion at all. The arched ribs which meet in the middle and give the canopy form to the whole, turn up into another cabbage-leaf on which is another shrine. The only bit of the work which represents good detail, from an architect's point of view, is the horizontal band with a decorative filling which runs round above the springing of the canopy and binds the whole together; and that is out of keeping with the rest. We certainly think the sculptor would have acted more wisely, and done better for the school, to have got an architect to design the canopy for him.

Mr. E. M. Atkins's "Design for a Frieze—Wild Hyacinths" (1,549) is rather like some other designs we have seen at the Academy, either by him or others; the delicate blue flowers are treated in strings which form circles round some figures of children incorporated in the design, the general effect is pretty and decorative. Mr. Sidney Smith's designs for ceilings for a new residence in Sussex (1,574) are Classic panelled designs with enrichments, containing nothing new in idea; but which, over rooms which suit that style of ceiling, will have a rich and satisfactory effect; they are apparently for execution in plaster; there is only one tint over the whole of each ceiling, but the tints are varied, probably with reference to some variety in the general treatment of each room. Mr. T. H. Lyon's "Reredos for St. Michael's, Islington" (1,585) is a small drawing apparently executed in coloured crayons, showing a reredos composed of rather thin Gothic tracery (wood?) and a richly carved cornice picked out with gilding; the general effect is pleasing, but the drawing is really too small and too uncertain in execution to show the detail intelligibly. A more important piece of church work, or at least shown in a better and more important drawing, is Mr. A. C. Blomfield's "Memorial to the late Duke of Westminster" (1,652) to be placed in the south transept of Chester Cathedral. This is a tomb with a recumbent effigy, the side of the tomb divided by vertical mullions into four narrow and three square compartments, the latter filled with tracery designs and decorated with a coloured shield in the centre of each compartment; a separate drawing is given of the tomb railing, a good and carefully worked-out design of some originality of character.

Mr. F. L. Pearson's "Repoussé Metal Triptych for the Chapel, Cliveden" (1,676), is shown in a small and most minutely finished drawing. It is a kind of modern Romanesque in general character; the centre portion ends with a semicircular finish, with folding doors with a quadrant finish expanded at each side; the altar below is of marble with pilasters enclosing square compartments which are filled with coloured mosaic designs in circles, with spandrel eyes at the angles. The design is made

the most of by the drawing, which is almost microscopic in delicacy. A much less sumptuous but an original piece of church furniture is the pulpit for All Saints', Leverstock Green (1,692), designed by Mr. Maxwell Ayrton. This, as we read on the drawing, is of English oak inlaid with ivory and pewter. The newel to the steps is treated in these materials, with vertical waving lines of inlay which have a very nice effect, and the whole thing is in excellent taste, but it wants the base to be a little strengthened or marked with a moulding, or in some other way; as it stands, it almost suggests the idea that something has been cut away from the bottom.

It was understood a year or two ago that mere representations of ancient architecture would not be accepted in future; and as to mere pictures of it we quite agree—they are of no architectural value, and take up unfairly the space which ought to be claimed by original designs; but we do not think the disqualification ought to extend to measured drawings of old work, which are often of real value. At all events, this clearance seems to have been made for the present, and one drawing alone of an old building finds place, whether by accident or by special grace—a small pen sketch by Mr. Raffles Davison of "Château Josselin" (1,673), a château with three great round towers coming down right into the existing roadway, with curtain walls between, diversified by arcaded corbel tables and dormers with small crocketed pinnacles. It is a picturesque bit of ancient work, and (needless to say) a very good sketch.

One rather regrets to find that models have dropped out again this year; at all events, if there were any sent they were not accepted. Models add very much to the interest of the architectural room, and are a form of architectural illustration which is on every ground to be encouraged; and as a beginning had been made a year or two ago, we hoped it would be continued. It must be admitted, however, that unless a man can make a model with his own hands, as one well-known architect does, it is a costly way of illustrating your work, and can only be undertaken by those who have a little spare money to lay out on such an object.

LETTER FROM PARIS.

THE Grand Palais des Beaux Arts has by a recent decree been transferred from the holding of the Ministre du Commerce to that of the Ministre de l'Instruction Publique et des Beaux Arts, although a certain amount of work on the building still remains to be done under the direction of the former Minister to complete the terms of the contract made in view of the Exhibition of 1900.

M. Nénot, the architect of the new Sorbonne, has been actively pushing forward the interior decoration of his fine building. M. Dagnan-Bouveret has just fixed up in the Amphithéâtre de Richelieu his large fresco representing Apollo and the Muses. The work is not, however, yet complete, the artist promising to finish it for the end of July.

It has been decided partially to restore one of the oldest and also one of the smallest of Parisian churches, that of Saint Severin, almost hidden from public view behind the Boulevard Saint Germain. Although the scaffolding which for some years has surrounded the fine old church of Saint Eustache, near the Halles Centrales, has now been taken down, yet the restoration is far from complete, and will cost another 12,000*l.* as soon as funds are available.

At the last meeting of the Société des Amis des Monuments Parisiens it was decided to enter a protest against the mutilation of the Place de la Bourse and of the Palais de la Bourse itself by the construction of the proposed new wings on either side of the building, which, it is contended, will entirely spoil the aspect of the Bourse and the surrounding square; to support M. Charles Garnier, with his scheme for the formation of a museum of toilette, costume, and public art; to urge the completion of the work of restoring the churches of Saint Eustache and Saint Pierre de Montmartre; and to take into hand the defence of the interesting old houses near the Pont Neuf.

The annual congress of the Société des Architectes Français will be held at Nancy and at Paris from June 23 to 29. The programme will comprise visits to the monuments and artistic works in Nancy and the neighbourhood, excursions to several neighbouring towns, and—on the return to Paris—the discussion of several important questions, amongst which will be the rules and regulations of street frontage and their effect on architectural style, architects' fees, and the federation of architectural societies. The annual distribution of awards to architects and builders will take place, as usual, in the amphitheatre of the Ecole des Beaux Arts.

M. Louis Bonnier, President de la Société des Architectes Diplômés, architecte en chef des installations de l'Exposition de 1900, has been appointed to the post of architect of the Palais de l'Elysée, left vacant by the death of M. Adrien Chancel.

M. Dubuc, Municipal Councillor, brings forward the evident inferiority of the French artist compared with the English artist on the footing of applied arts. Considering that this inferiority is due to the want of co-operation between the producer and the consumer, he proposes, as a means to elevate the taste of the consumer and bring him more into contact with the best work of the producer, to install each month in the Petit Palais des Beaux Arts small exhibitions of the work of twelve artists chosen from the various categories of applied art, these artists exhibiting not only their complete work, but also the sketches and rough models which formed portion of their work. The general public will be admitted to these exhibitions, and the pupils of the various schools of art will be taken to view and study the works, and thus taking inspiration from their elders, gradually help to create a national style of applied arts. The scheme has received the approval and support of a number of well-known artists.

M. Pascal, the well-known architect, has just taken possession of the piece of ground in the centre of the Place Victor Hugo, destined for the erection of the pedestal of the monument to be erected to Victor Hugo, of which a life-size model by the sculptor Barrias was exhibited in the centre of the hall of the Grand Palais last year. The monument will be inaugurated in the spring of next year, on the date of the centenary of the birth of the poet.

The various offices and administration of the Ecole des Beaux Arts have now been removed to the luxuriously decorated rooms of the old Hôtel de Chimay, next to the Ecole buildings, and acquired by the administration for the sum of 280,000*l.* The portion of the Ecole now left vacant will be arranged as study rooms for the Prix de Rome competitions.

The important case of responsibilities for the accident of the footbridge leading to the Globe Celeste at the late Exhibition, by the fall of which several lives were lost last year, is now before the Court of Justice. It will be remembered that this footbridge was constructed of armed cement according to the system called Mattrai. The Public Prosecutor maintains that the pillars of the bridge were of insufficient strength, that the arches were badly constructed, and that the cables under tension at either end of the bridge were not in the same vertical plane, and therefore tended to upset the whole of the construction. The architect, M. Galeron, declines all responsibility, throwing this on the engineer who conducted the work, M. Tedesco; the latter, however, casts the responsibility on to the contractor, M. Mattrai, who prepared the plans; this last, however, states that the engineer had the carrying out of the work entirely in his own hands, and modified the plans and scheme of construction without consulting the contractor.

The jury of the section of architecture at the Salon des Artistes Français voted on the 31st ult. the various awards to architects. One round of voting was sufficient for making the unanimous award of the medal of honour to M. Tournaire for his remarkable contribution showing the actual state and the scheme of restoration of the ancient Temple of Delphos. M. Tournaire, a native of Nice, was pupil of M. André at the Ecole des Beaux Arts; he carried off the Grand Prix de Rome in 1888, and was awarded a grand prix and made Chevalier de la Legion d'Honneur at the late Exhibition. M. Tournaire is one of the chief inspectors of the architectural work of the city of Paris. The two first medals were awarded, one to M. Jacques Hermant for his scheme for the Caserne des Celestins, the other to M. Louis Louvet for his designs for a Musée des Arts Decoratifs. M. Hermant was a pupil of M. Vaudremer, and M. Louvet pupil of M. Ginain. Second medals were awarded to MM. Henri Legrand, Thibeau, and Louis Grandin. There are also a large number of third medals and honourable mentions. In the section of painting the votes were first divided between MM. Gabriel Ferrier, Henri Martin, Wencker, and Bail, but as after further voting none of these artists carried off the necessary majority of votes, no medal of honour was awarded. In the section of sculpture there was no medal of honour awarded, the votes remaining divided between M. Soulés and M. Becquet. In the section of engraving the medal of honour was awarded to M. Mougin, who exhibited an engraving of "The Baptism" after Sadler.

A large number of well-known architects and builders have sent in the following petition to the Senate, protesting against the passing of the proposed law disestablishing the congregations of religious orders and forbidding future unauthorised religious societies and institutions:—"The religious orders of past times have covered France with monuments which are our national glory. The religious societies of our days have raised buildings which are sometimes remarkable, and are always useful to our country, being generously open to the poor and suffering. Every day some new charitable work created by them necessitates new buildings and procures to the whole building corporation and to numerous workmen a considerable amount of work and employment. Full of gratitude and admiration to a past as glorious to French architecture as useful to the country, and reasonably counting on a future not less glorious and profitable to the large army employed in building work; considering the irremediable wrong which the even partial destruction of religious congregations would do to art and construction; we, the undersigned architects on one side, and builders on the other side, petition you to suppress the scheme of the law of associations of which the terms are so unfavourable to religious congregations."

M. Redon, the architect of the Louvre, is now occupied in rearranging the nine large rooms on the first floor of the north wing of the Cour du Louvre for the future installation of the museum of the drawings of old masters, portions of which have been ousted from their places in the five new rooms recently installed and devoted to the museum of furniture.

The subject for the annual Concours Labarre at the Ecole des Beaux Arts, was "A Palace for the People." The building was to comprise all the services which would enable the working man to usefully employ his leisures, procure for him the various advantages of co-operative societies, the means of instructing himself, and providing him with every information on questions or events interesting to him. The building was to contain on the ground-floor large stores and shops on the co-operative system, reading-rooms for periodicals, café with billiard-room, large co-operative restaurant, bath establishment, a popular theatre, garden with gymnasium, and a large hall for children's recreation. On the first floor a large library of instructive works, two conference halls, an exhibition hall, and a museum of work to contain models and works of art and industry. On the second-floor a number of small rooms for letting to bachelor workmen, meeting-rooms, and the various offices. The ground was an isolated one of a surface of 5,000 square mètres. The Prize was awarded to M. Etienne Coutant, pupil of the *atelier* Pascal.

On the 19th ult. took place the unveiling of the monument raised at Fontainbleau to the memory of Mme. Rosa Bonheur. The monument is due to the generosity of M. Gambart, Spanish Consul at Nice, a great admirer of the artist and her work. The monument is very simple in style, being composed of an oblong pedestal of Lorraine stone, ornamented with a bronze bas-relief on each side, one a portrait of the late artist, the three others representing reproductions of three of her best-known pictures: "The Horse Market," "The Plough," and "The King of the Forest." On the pedestal is placed the bronze figure of a bull, an enlargement of a model from the hand of the artist herself. The architect is M. Jacob, Architecte des Monuments Historiques.

Next session the Municipal Council of Paris will have to consider, among other important matters, the best way of utilising the Petit Palais. Two schemes are before them: one to consist of a permanent exhibition of ancient art, subject to continual additions. The objection to this is that exhibitions of this

class are already provided for in the Cluny and Carnavalet Museums and at the Louvre, and that we hardly want another. The second scheme, which seems to be the popular one with the Council, is to make of the Petit Palais a sort of municipal Luxembourg, in which will be collected all the objects of art now scattered among the various municipal buildings, and in the repository which the Service des Beaux-Arts possesses at Auteuil. This would form a museum analogous to those in other great towns both in France and abroad; the municipal collection, which is enlarged every year by the purchases made at the Salons, is already rich enough to offer to the public a fine gallery of pictures, marbles, bronzes, tapestries, &c. It is a matter of some interest to Paris to know how this will be settled.

In the meantime the Service des Beaux Arts is organising at the Galleria Museum an exhibition of objects of industrial art, which will probably have some success. Among the things to be included in it are pewter-work by Baffier and Desbois, enamels by Touretti, jewellery by Vernier and Lalique, furniture by Carabin and Lambert, and works by Alexandre Charpentier, &c. This exhibition will be repeated periodically, and will put this beautiful but small building to a better use than has hitherto been found for it.

The Municipal Council will also have to consider in a few days the subject of the new metropolitan railway lines. The only line completed—that from Vincennes to the Bois de Boulogne—has been of such public service that the Town Council are desirous to complete the whole service as soon as possible. Besides the public interest, however, there is a financial bait in the matter, since the railway company is to pay to the City of Paris a rent of ·05 centimes per traveller carried, which means a daily revenue of 20,000 fr. to 25,000 fr. for the municipal coffers; so that the Municipality are not only anxious to finish the proposed line, but even to lay out a new one. This latter is proposed to be from east to west of Paris, between the artisan quarters of Menilmontant and the wealthy neighbourhood of the Pleine Monceau, with branches into the business quarters of the Bourse and the Rue du 4 Septembre.

There is much talk at present of the injury done in various ways to the natural beauties of the country. A society has been formed, analogous to that of the Monuments Historiques, the object of which will be to protect forest trees from destruction, and to put a stop to the constant disfigurement of the landscape by the immense advertisements which are now found perpetually along all the railway routes, whether one travels towards the Pyrenees, the Vosges, or the Alps. Messrs. Beauquier and Dubuisson are about to submit to the Chamber of Deputies formal proposals for the official protection of landscape, and we are all hoping that Parliament will be able to do something definite to put down this commercial vandalism.

At the Ecole des Beaux Arts the *ateliers* open for female students have already given most excellent results, and in the section of painting a lady, Mlle. Heavelmans, has obtained a *troisième médaille* in anatomical drawing.

The architectural profession in France has suffered a great loss by the death of M. Gaston Cousin, one of the architects of the Alexandre III. bridge, and a former vice-president of the "Société des Architectes Diplômés," who has died, after a very short illness, at the age of forty-two. M. Cousin was a pupil of MM. Coquart and Gerhardt. On leaving the Ecole des Beaux Arts he entered on the architectural staff of the opera house, under Charles Garnier. In 1893 he took part in the competition for the Opera Comique, and his design, made in collaboration with M. Cassien-Bernard, obtained fifth premium, and the same two architects obtained the second premium in the competition for the Petit Palais. It was in consequence of this that the Government appointed them architects for the Pont Alexandre III., for which each of them received the Cross of the Legion of Honour. M. Cousin was also commissioned to design the Swedish pavilion in the great Exhibition. His early death, following upon that of Adrien Chancel, is a serious loss to the Société Centrale.

ELECTRIC LIGHTING AND PUBLIC BATHS IN LIVERPOOL.—Application has been made to the Local Government Board by the Corporation of Liverpool for sanction to borrow 300,000*l.* for the purposes of electric lighting, and 24,000*l.* for the provision of public baths.

WORKS IN WOOD AND WOOD-CARVING AT THE CARPENTERS' HALL.

THE exhibition at the Carpenters' Hall this year is an interesting one. It is typical of both the strength and the weakness of the English building trade, so far as it rests with the carpenters and the carvers. No country in the world, probably, could make such a good show of its carpenters' and joiners' work. In this class the exhibition is confined of necessity to models which from the point of view of execution come more under the title of cabinet-making. The majority have no scale attached to them. They are readable and skilful exercises in construction, explained where necessary by large details of the more important sections, fitted together with such precision that screws or glue are unnecessary, and the visitor may take them to pieces and fit them together again like a Chinese puzzle. It is unfortunate that the scale is so often omitted; without it there is nothing to indicate whether or not the workman is aware of the scantlings of his timbers, in which case the model he has spent so much time on loses one of its greatest educational values. The model of a hip roof for slates, to a scale of 1½ in. to 1 ft., by Mr. A. Norton is a most complete and workmanlike model. If an architect, during his apprenticeship, were set to such a task, he would learn once and for all all that was possible for him to know of a hip roof for slates. Good, also, are the Mansard roof trusses by Mr. E. F. Lay. A model by Mr. J. Colburn of centreing for a masonry arch of 150 ft. span has been awarded first prize and special gold medal as the best exhibit in its division. It is a fine design and a fine piece of work, executed with singular patience and exactness. A problem of more abstruse mathematical calculation, if less fatiguing in execution, is the model of vaulting by Mr. W. E. Saunders, an apprentice. The model shows the intersection of two barrel vaults, the centre line of one of which is a curve, while the other vault tapers from a greater to a less diameter; such a problem as you would get in roofing an aisle round the semi-circular apex of a church. Such a problem nowadays would be solved probably by not using barrel vaults, which, in a Renaissance building at least, would be supplanted by a saucer dome. It is, however, an interesting exhibit and well deserves the prize and gold medal awarded it. Of three models for a circular staircase the first prize is taken by Mr. S. Savill; the award was probably influenced by the economy of material and space effected in this design by the shallow depth of the stair and soffit, and by the clever cutting of the miniature handrail, which finishes with the old-fashioned curve without a newel head. In other respects the model by Mr. H. Treais, which wins the second prize, is a superior piece of work.

From these thorough and able exhibitions of skill we turn with something like despair to the furniture and wood carving. So much skilled labour in artistic hands should lead to valuable results; as it is, our labour in this direction is mostly only so much encouragement to showy vulgarity. It is no exaggeration to say that no single piece of furniture, from the point of view of design, is fit for the house of an educated person. Compare the chairs with the beautiful examples of old work lent for the occasion by South Kensington. No craft can have suffered more during the last 100 years than that of furniture-making, mainly because of the separation of the operative from the designer. When we see the operative left to himself and his foreman, his productions are pitiable. In the wood-carving classes the same lack of thought and tradition is noticeable. Unlike our forefathers, or the Japanese or the Italians at the present day, the English wood-carver only does well when he is copying or working from other people's designs. His attention is entirely absorbed by the details, the more variety in which the better he is pleased. He can undercut to perfection; indeed, the best piece of carving in the present exhibition is a study after Grinling Gibbons carved from the solid block by Mr. C. Milson, and is a remarkable work. Mr. W. M. Barnes wins the gold medal and first prize with a group of three exhibits, the principal of which, a "carved walnut casket," is an attempt at design rather in imitation of the clever work of Mr. George Frampton, A.R.A. The design is much more suitable for metal than wood, as, indeed, the title "easket" at once suggests; it is decorated with some clever carved boxwood panels inlaid, but the less prominent inlays are merely a smearing of wax which spoils it all.

Two hand mirrors by Mr. J. Osmond are very good, as also is a carved oak panel for a door by Mr. J. Phillips, which by contrast is a strong design. Among the loan exhibits, which alone would make the exhibition worth a visit, are two beautiful little panels of the period of Francis I.; a carved pilaster, probably the work of a living Italian, a marvel of minutely skilful execution; two boxwood carvings of cupids laid on a dark plain background, and two pilasters by Noci, lent by Messrs. Gillow & Co.; and of modern English work, a case of little fragments by Mr. G. H. Bull, the gem of which collection is a single spray of acanthus foliage.

THE ROYAL INSTITUTE OF BRITISH ARCHITECTS.

A GENERAL meeting (business) of this Institute was held on Monday at No. 9, Conduit-street, Regent-street, Mr. Wm. Emerson, President, in the chair.

The late John McKean Brydon.

The Chairman said that there had been many gloomy announcements to make from that chair during the last year or so of losses which had befallen the Institute by the death of distinguished and respected members, but he thought there had been none sadder than that which it was his duty to mention that day—viz., the loss of their friend and Vice-President, Mr. John Brydon. When a man died full of years and with his work carried out to completion, one felt that his life had seen a fitting ending; but in the case of Mr. Brydon, and in that of Mr. William Young, who died a few months ago, both of whom had made the designs for the largest work they had ever been employed upon, before they could even lay one stone they had been called away. He would ask that an expression of their sorrowful regret for the loss they had sustained be recorded on the minutes, and that a letter of sympathy and condolence be forwarded from the Institute to Mrs. Brydon, his widow.

Mr. Aston Webb, A.R.A., said he was sure they all felt with the President the gloom and solemnity of the occasion. Death had been very present with them lately. At their last meeting it was Arthur Cates; at the present it was John McKean Brydon. They might almost use the words of John Bright on a memorable occasion, "The Angel of Death is present amongst us; you can almost hear the beating of his wings." John Brydon, whom they all knew so well, was so keen, so alert, so genial, and so kindly, that it seemed almost impossible, even for those who saw him laid to rest the other day, to realise that he would never sit in his accustomed place on those benches again. He was a man of strong opinions, and a man who did not shrink from expressing them strongly; but he also had the feeling of give-and-take which was necessary to the carrying on of the work of this life, and he never pressed his opinions beyond what he was entitled to do. As an architect he strenuously advocated breadth and simplicity in architecture, and in his work he endeavoured, and to a great extent succeeded, in carrying out those principles. He (the speaker) had not the privilege of knowing Mr. Brydon as intimately as some of those present, but he knew that when he first came to London his life was not free from struggle and almost hardship. As a man, sorrow and bereavement had fallen to him, perhaps somewhat more than to the average man amongst them; and as at last he grasped the prize it was most pathetic and almost tragic to think that he himself was snatched away and that the prize was to fall to another hand. It made them feel with Burke, "What shadows we are, and what shadows we pursue!" The present was not the time and he (the speaker) was not the man to give a critical notice of his work, or of Brydon as a man, but it was a time for them to express their great regret and sorrow that they should never see him there any more. It was also fitting and right that they should convey to those dear to him whom he had left behind their sincerest sympathy and condolences with them in the great loss which they had sustained, which they his brethren had sustained, and which the Royal Institute, which he had served so long so faithfully, and so well, had sustained.

Mr. John Belcher, A.R.A., said that the death of Mr. Brydon had come as a great blow

to every member of the Institute, not only because they were not acquainted with his illness, and were not aware that he was seriously ill, but because he was one whom they felt they could ill afford to lose. He was a most conscientious artist, working always on quiet and safe lines. He hated meretricious ornament and highly favoured that which was dignified and monumental in their art. In those respects he set a good example to most of them. But especially did he set them a good example in the interest and affection he showed for the Institute, of which he was so staunch a friend. He never lost an opportunity to favour the Institute and to do what he could to advance its interests. He was also one who assisted greatly the younger members of the profession, both by his interest in them and by his kindly counsel and encouragement. He was, as Mr. Webb had said, a genial companion and a good friend. The members of the Council would long mourn their colleague; he was always so energetic and ready with good and sound advice and practical assistance. There was much more that could be said about his friend Brydon, but their duty that evening was to express their sympathy with his widow and family in their deep sorrow, and the vote which had been moved had his sincerest support.

The vote, having been put from the chair, was passed in silence.

The following gentlemen were then elected:—As Fellows: Messrs. J. C. Hall, London; H. B. Measures, London; E. H. Pritchett, Swindon; and N. Y. Armstrong Wales, Dunedin, New Zealand. As Associate: Mr. J. A. Minty, Leyton. As Honorary Corresponding Member: M. Sainte-Marie Perrin, of Lyons.

The following officers were declared duly elected for the ensuing year:—

President.—Mr. William Emerson.

Hon. Secretary.—Mr. Alexander Graham, F.S.A.

Vice-Presidents.—Messrs. John Belcher, A.R.A.; T. E. Collcutt; and John Slater, B.A.Lond.

Members of Council.—Messrs. F. T. Baggallay; G. F. Bodley, A.R.A., F.S.A.; W. D. Caröe, M.A.Cantab., F.S.A.; W. M. Fawcett, M.A.Cantab., F.S.A.; Ernest George; J. A. Gotch, F.S.A., Kettering; G. E. Grayson, Liverpool; E. A. Gruning; E. T. Hall; H. T. Hare; E. W. Mountford; Professor Beresford Pite; G. H. Fellowes Prynne; P. G. Smith; Leonard Stokes; R. Phenè Spiers, F.S.A.; Paul Waterhouse, M.A.Oxon.; Aston Webb, A.R.A., F.S.A.

Associate-Members of Council.—R. S. Balfour; W. H. Bidlake, M.A.Cantab, Birmingham; J. S. Gibson, H. V. Lanchester.

Representatives of Allied Societies.—J. J. Burnet, A.R.S.A., Glasgow Institute of Architects; Frank Caws, Northern Architectural Association; C. H. Channon, York Architectural Society; A. Clyne, Aberdeen Society of Architects; Sir Thomas Drew, P.R.H.A., Royal Institute of the Architects of Ireland; F. H. Oldham, Manchester Society of Architects; S. P. Pick, Leicester and Leicestershire Society of Architects; F. W. Wills, Bristol Society of Architects; Butler Wilson, Leeds and Yorkshire Architectural Society.

Representative of the Architectural Association (London)—Mr. W. H. Seth-Smith.

A vote of thanks to the scrutineers was carried by acclamation, and the meeting terminated.

The next meeting will be held on Monday, June 17, when Professor W. R. Lethaby will read a paper on "Education in Building."

THE INCORPORATED GAS INSTITUTE.—The thirty-eighth annual general meeting will be held at the Royal United Service Institution, Whitehall, London, on Tuesday (10.30 a.m.); Wednesday and Thursday (10 a.m.), June 11, 12, and 13, under the presidency of Mr. T. Ormiston Paterson, M.Inst.C.E., who will deliver an address at the commencement of the proceedings. A lecture on "The New Table Photometer and Pentane Ten-Candle Lamp" will be given by Professor Frank Clowes, D.Sc., and the following papers will be read and discussed:—"The Effect of Quality and Pressure of Gas on the Efficiency of Incandescent Gas Lighting, having regard to Economy," by Mr. W. Grafton, of Beckton; "Why I Adopted Water Gas," by Mr. William Langford, of Longton; "British Water Gas Practice," by Mr. Robert Porter, of Elland; "Self Intensifying of Gas Pressure by Means of Waste Heat," by Mr. C. Scott-Snell, of London; "High and Low Pressure Gas Incandescent Lighting," by Mr. William Sugg, of London.

THE ARCHITECTURAL ASSOCIATION:

ANNUAL DINNER.

THE annual dinner of the Architectural Association was held on Friday evening last week at the Criterion Restaurant, Piccadilly Circus, the President, Mr. W. H. Seth-Smith, occupying the chair, supported by Mr. William Emerson, President of the Royal Institute of British Architects; Mr. A. W. Soames, M.P.; the Rev. H. Russell Wakefield; Rev. Dr. G. H. West; Major-Gen. Sir H. Trotter; Sir George Young; Dr. Isambard Owen; Dr. W. J. Collins, L.C.C.; Professors F. E. Hulme, T. Roger Smith, R. Elsey Smith, V.P., and F. M. Simpson; the Master of the Plumbers' Company; Mr. Aston Webb, A.R.A.; Mr. R. M. Beachcroft, L.C.C.; Mr. G. L. Gomme, Clerk to the L.C.C.; Messrs. F. T. Baggallay; R. S. Balfour; J. H. Colls; G. B. Carvill; E. Guy Dawber; W. E. Davis; A. Hands; H. T. Hare; Reginald Hart-Dyke; Francis Hooper; W. G. B. Lewis; W. J. Locke; A. E. Murray; F. W. Pomeroy; E. S. Prior; H. A. Satchell; R. W. Schultz; J. Osborne Smith; John Slater; H. Tanner, Sen.; Clyde Young, and others.

The toast of "The King and Royal Family" having been honoured,

The Chairman proposed "The Church and Legislature," coupled with the names of the Rev. H. Russell Wakefield and Mr. A. W. Soames, M.P.

The Rev. H. Russell Wakefield, in response, said that enough care was not taken now as formerly in the erection of church buildings. It was not because there was not the artistic power to design beautiful buildings such as were erected in former days, but because money was not forthcoming for the purpose. There was something inspiring and stirring in the sight of a beautiful church or cathedral, and clergymen preached better sermons in such beautiful surroundings.

Mr. Soames also responded. He said that the House of Commons was more representative of the many classes of the country than it used to be, but, unfortunately, art was very slightly represented indeed. That was probably a reflex of the attitude of the nation at large towards art. If there were greater appreciation of art in the country there would be more representatives of it in the House of Commons. Architects and artists (he spoke as an architect) did not receive much assistance from the Government, but in some Continental countries great opportunities were given to artists: public buildings were decorated with grand schemes of decoration; sites carefully selected for buildings, and money lavishly spent. Such encouragement art in this country had seldom had. It had been said that the interests of art would be better served if there were a Ministry of Fine Art. He thought that that would be a case of exchanging King Log for King Stork, and that it would not be entirely an advantage to artists. There had been a decided improvement in the manner in which recent Governments had treated art questions which had come before Parliament. For instance, he thought the plan adopted in regard to the new public buildings in Whitehall was the right one, viz.: the selection of thoroughly able architects to whom were given a free hand. They must all feel deep regret at the sudden death of Mr. Brydon, whose designs for the buildings in Parliament-street were very fine, the circular court in particular being a masterpiece. It was the duty of artists to do all they could to educate public opinion on the subject of art, for that was the best way to influence the Legislature and thus get a more satisfactory attitude of Governments towards art questions. It rested very largely with artists to bring about an appreciation of what art really meant—it could not come from those who were not artists themselves.

Mr. John Slater then proposed "The Army and Navy," coupled with the name of Major-General Sir H. Trotter. He said the connexion between the Army and architecture was not quite so remote as might be thought, for the War Office had a very great work to do in providing barracks, stores, and other buildings for the accommodation of the Army, and there were several members of the Association and the Royal Institute of British Architects who were engaged at the War Office doing that sort of work. In regard to one man who had his training in the War Office, it could be said that, in conjunction with their friend and colleague, Mr. Aston Webb, Mr. Ingress Bell had attained a very high position in architecture.

Major-General Sir H. Trotter, in the course of a suitable reply, said he must congratulate the artists on the excellent volunteer art corps under Colonel Edis. The artists had done splendid work at home and splendid work in South Africa.

Mr. F. T. Baggallay then gave "The Royal Academy and the Royal Institute of British Architects." These two bodies were subject to a good deal of sporadic criticism amongst architects, but he thought it would be hard to find bodies of men who would do the work these two bodies undertook in a better way. There were many architects who owed much to both bodies, and few who did not owe much to one or the other. There were many architects who had had their first insight into the æsthetic side of architecture in the Academy School, and there were many others (he knew it was rather a delicate point, but he said it with conviction) who had had their first insight into the breadth of architecture and the ground it covered by having to prepare for the Institute examinations. With the toast he coupled the names of Mr. Aston Webb, A.R.A., and Mr. William Emerson.

Mr. Aston Webb, in responding for the Academy, said there was one subject which the Architectural Association and the Royal Academy had equally at heart, and that was the subject of education. Among the thousands who thronged the picture galleries at Burlington House at the present time, probably very few remembered or knew of the silent work which was carried on under their feet, *i.e.*, the education of those young men and women whose ambition it was in future time to hang their works in those galleries. The Association in the same way was very much concerned in the education of young men, and, in fact, was just starting a new scheme. He was one of those who did not believe that a scheme of education would produce good architecture of itself, but he was confident that architecture must be founded on knowledge, and he did not think that any one present that evening who agreed that knowledge was power would deny that that applied to architecture as well as to other arts or sciences. There might be a danger in so many bodies starting some architectural course, and he believed that if they could be concentrated to some extent they would be more likely to do good. Two or three strong, well-attended classes were likely to do far more good than twenty feeble and sparsely-attended classes. He would like to see the educational scheme of the Association and the educational scheme of the Royal Academy working on harmonious lines. The work of the Association was perfectly elementary; the work of the Academy was of a more advanced type, because the Academy did not admit students until they had arrived at a certain stage of proficiency, and it should be one of the objects of the Association to bring pupils up to that stage. Students should remember that with all schemes of education success in life depended upon themselves, and that without energy and great sacrifice they would not achieve success. He sometimes thought it would be fortunate if centres of education could be farther from pleasure-loving London, but in any case they must be prepared for sacrifices in order to achieve their work.

Mr. William Emerson, President of the Royal Institute of British Architects, said he thought such social gatherings had considerable influence for good on the future of architecture—partly by bringing into harmonious intercourse with each other men who did not generally meet (leading to the interchange of views on many subjects), and also by the encouragement that one man gave to the other in the interests of art and architecture. As to the new educational movement started by the Association, it was worthy of all commendation, for however much one might study individually, study in a school was requisite to enable a man to arrive at a proper knowledge of the art or business he followed; and without study and without the knowledge that could be obtained only by study, architects could not arrive at that facility of expression in design and the expeditious mode of working which were absolutely necessary for a man who had a busy professional practice. Of course, architects needed not only to work quickly if they were busy men, but to work thoughtfully; but however much thought they put into their work, if they could not work fairly quickly they

would be left behind in the race. In thinking of this facility of work in art, he had been reminded of a story about Donatello, who was asked once by the Council of Florence how much he would make a certain statue for. Donatello said fifty crowns, which the Council thought was too much, and they gave the work to another and less accomplished sculptor, who charged eighty crowns. The Council declined to pay, and a hot dispute took place. The matter was referred to Donatello, who awarded the other sculptor seventy crowns. This surprised the Council, who pointed out that Donatello was ready to do the work for fifty crowns, and yet he had awarded an inferior artist seventy crowns. Donatello's reply was that he could have done the work in a month or less, and fifty crowns would have paid him well, but that the other sculptor, having taken very much longer to do the work in consequence of his incapacity, seventy crowns was not too much to pay him. He (the speaker) did not mean that the work done in the most expeditious way was necessarily the best, but facility in the execution of work was a great advantage to a man, and it was only obtained by constant study and practice. In addition, an architect had to exercise very considerable forethought and care in his work, which might be either a lasting honour to him or a standing reproach. He could quite enter into the feeling of the painter who changed his profession and became a physician. When asked why he had done so, the physician said: "When I was a painter, I found my work was exposed to the sneers and gibes of every critic, and a great deal of my work was a constant reproach to me; but when I became a physician, I found that the unfortunate sufferers of my blunders were buried, and then they never rose to reproach me later on." Some architects must be sorry they could not bury their work; but that they could not, showed how great was their responsibility. After what the Rev. Russell Wakefield had said about better sermons being preached in beautiful churches it might almost be said that architects won souls by proxy—by building beautiful churches. That was an encouraging thought for church architects. The movement of the Association in starting, in the energetic way it had, the new classes for study was a movement in the right direction, and it would probably result in some lasting benefit to the art of architecture, and in achieving that the Association would be working on all fours with the Institute; in whose charter it is stated that it was established for the sake of fostering the art of architecture. That was what the Association was doing by extending advantages to students in the way of education.

The next toast was "The London County Council," which was ably proposed by Sir George Young, Bart. They had heard that the Church provided a fine field for architects; no one could deny that the State, with its infinite resources, also did so; and behind them both there was the public, who gave architects their opportunities. Another great field for the architect had been those municipalities of the Middle Ages which on the Continent (especially in Belgium, Germany, France, and Italy) had erected great municipal buildings—things of beauty, joys for ever. We in England had created great municipalities, the London County Council being the latest and biggest of them, and it remained in the womb of time whether it should be the greatest. The work it had done so far was mostly of an humble character, and did not at present greatly attract the eye. The work the Architectural Association was doing at Great Marlborough-street had been largely helped by the courtesy and good sense of the London County Council in granting students access to the County Council schools in Regent-street, where students had a chance of learning practical handicraft work in the excellent classes there. No great work could be done by a public body for the good of the public unless it was not only useful, but appealed to the imagination. In appealing to the imagination, a public body acquired that confidence of the public which was so useful and which enabled them to do great things. The London County Council were about to make a great street through one of the unloveliest parts of London, and he hoped they would do something in the direction of an appeal to the imagination. He was glad that the Council had decided to preserve the churches in the Strand, but in the new street itself they would have large frontages to dispose of, and they would be able to impose their own conditions. We were apt to think that it was best to exercise economy in such matters, but he hoped that when the conditions were settled for building in that new street that they would be settled under artistic guidance, and that an attempt would be made to make the new street a credit to London. If that were done—if something should be produced which was not merely big, but fine—the County Council would hear very little more of that criticism which had been bestowed upon them. He trusted that the new movement in architecture, which had resulted in the erection in some of our streets of buildings which excited admiration, would be extended to something more of a system. The art of architecture was one thing; the business of it was another. To keep them distinct and yet to bind them in a perfect synthesis was the work of a body like the Association, and it was to be hoped that architects would find patrons as intelligent as were those of the Middle Ages, when those beautiful buildings were erected—churches and buildings of State—which were now visited and admired by people. There was no reason why London should not be beautiful as well as vast and opulent, and it was for architects, assisted by the County Council, to make it so.

Dr. Collins, L.C.C., in response, said it might be asked what there could be in common between a profession like the architectural profession and a body such as the London County Council, which was so modern, so matter of fact, so prosaic and so mundane. At any rate there was one common ground upon which the Council and the Association met, and that was in endeavouring to study that masterpiece of legislation, that consolidated simplicity which consisted in the London Building Act. He had only to allude to Sections 8 and 41 to carry that assembly with him when he said that we are fearfully and wonderfully legislated for, and that the London Building Act is a mighty maze, although he believed it was not entirely without plan. In listening to Mr. Emerson's remarks, especially as to burying defective work, he thought there were other analogies between the two professions. He believed it had been said that the ancients tried to make medicine a science and failed, and the moderns had tried to make it a trade and had succeeded. He hoped and trusted that there was no analogy of that sort between the practice of modern architecture and the ideals of ancient architecture. He understood that before the formation of the Association in the middle of last century the equipment for an architect considered necessary then was to have the run of an architect's office. He always regarded that expression as analogous to "walking the hospitals." Both professions had recognised that it was absolutely essential to engraft upon that curious mode of acquiring knowledge some kind of school education, some kind of steady practice, something of that kind of work done in the Arts and Crafts School founded by the Technical Education Board, which had provided some useful opportunities for study to members of the Association. He thought there was an educational relationship which might be usefully established between the municipality of London and the architectural profession, and he regretted that the architectural profession was not represented on the reconstituted Senate of the University of London. The profession which appealed to the harmony of the ear had a faculty all to itself, while the profession which represented the harmony of the eye was not represented. He hoped that a closer identity would be established between the profession and the University. He agreed with what had been said as to the relationship between the arts and the municipality in the Middle Ages, and he hoped that in time there would be a similar relationship between the two. The Council was oppressed by the wealth of London and its power and energy, as well as by its poverty, misery, and ugliness, and to redeem that ugliness they largely looked to the architectural profession.

Mr. W. J. Locke then gave the toast of the Architectural Association. The present year must be marked with a white stone in the annals of the Association as being the year in which they had taken the most important and decisive leap towards progress in their history, *i.e.*, the establishment of day classes in the Association. They had risen from a lower rank to a front rank among educational institutions; the advance had been steady and certain; and having overcome many prejudices, they stood the premier body for architectural education in the country, with dreams of premises of their own within sight of realisation. He congratulated the President and the committee on having brought to a successful issue a scheme to which had been devoted so much loving pains and an enthusiasm based on such a clear knowledge of the needs of the profession, for whatever false prophets might say, an academic training was a vital necessity for the pursuit of any art or any profession—whether it be medicine, painting, letters, or architecture. He knew two men of distinction in letters who recently greatly deplored their want of academic training in their youth, that lack of systematic education in thought and expression such as could be attained only by the study of classical methods and models. What was true of letters was true of architecture. This academic education which it was the province and privilege of the Association to give was of the most supreme importance, and the efforts about to be made would be watched with the keenest interest by all those who were concerned in the improvement of the art of architecture. With the toast he coupled the names of Mr. H. T. Hare and the President.

Mr. H. T. Hare, in reply, said that the Institute and the Association were complementary to one another and each was indebted to the other in its own way. The Institute looked to the Association for its future members (it was already indebted to them for many most distinguished members) and it looked to the Association to give such educational facilities to young architects as to prepare them to become in the future members of the senior body. The Association was indebted to the Institute for many specific favours and it looked to the Institute for a continuance of its support, without which it would hardly be able to carry on its work, *i.e.*, the education of architects, especially at the present time, when it was taking that important step, perhaps the most important step it had ever taken, viz., the establishment of day classes. Every one, he believed, agreed that the study of architectural education at present left very much to be desired. There was an entire want of system and method and everything appeared to be left to chance. A young man was articled to an architect—was almost pitchforked into the office, it might be said—and obtained "the run of the office," picking up what small crumbs of information he could and at the end of four or five years he probably knew very little more than he did at the time he was articled. The architect was not altogether to blame, because, in the midst of a busy practice it was manifestly impossible for him to devote time to the teaching of his pupils; it was consequently left to the men of the office. It was to remedy this state of things that the Association had established the day classes. The Association wished to give a young man an opportunity to prepare himself to enter an architect's office by teaching him in a methodical and systematic way the A B C of the profession. This would obviously be to the advantage of the student, and it would also be to the advantage of the architect, for from the day the student entered the office he would be useful and capable of considerably helping the architect. The committee were perfectly well aware that other bodies had established schools more or less on the lines the Association proposed to institute them, but it was thought that the Association was better qualified to direct such a school than any other educational body. The organisation of the scheme had exercised the minds of committees of the Association for several years, and a very large amount of consideration had been given to the matter in order to organise the school on a most satisfactory basis. A large number of eminent architects had been consulted, and had placed their advice at the disposal of the Association. The committee believed they were instituting the school on such a basis as would render it of permanent benefit to the profession.

The Chairman also responded. He desired to refer to the death of one or two very distinguished members of the Association, whose loss every one would lament. One was their friend and benefactor, Mr. Arthur Cates, who, only a few months ago, promised 250*l.* to the new premises fund. Only last year Mr. Cates rejoined the Association, paying thirty-four years' subscription in order to do so; and last year he gave them the chairman's hammer—one of those little marks of his kindly feeling towards them. Mr. Cates was honorary secre-

tary of the Association for some years. Another great loss they and the profession had suffered was the unexpected death of Mr. J. M. Brydon, who was on the Advisory Council for the Day School, and was one of the Visitors to the Class of Design. His kindly sympathy and tact in criticising drawings of the students was remarkable. Mr. Brydon was a most popular Visitor, and whenever his name was down for a subject he was sure to have a room full of students. The Association also had to regret the loss of Mr. William Young, who (as did Mr. Brydon) promised very substantial help to the premises fund. It might interest the company to know that the Association had had fifteen of its members in the war in South Africa—mostly Volunteers—and three of them had been lost, while one was dangerously ill. With regard to the scheme which the Association had on hand, they were conducting their educational work on lines which were thoroughly characteristic of England. We were slow to move, but we were proceeding in a scientific way—namely, by experiment, and refraining from adopting any foreign model wholesale. It might be said, "Why should the profession undertake the teaching as well as the examination?" He thought it was a wise plan to do so. Who but architects could know thoroughly the needs of young men training to be architects? It was consequently felt that the training should be kept in the hands of architects. In regard to new premises for the Association, the Committee had the matter deeply at heart, and he felt confident that during the next year a site would be found and a scheme would be before them, which, it was hoped, they would subscribe liberally to.

Professor F. M. Simpson proposed the toast of "Lecturers and Instructors." Any one who attempted at the present time architectural education in London laboured under great disadvantages. Architectural education was in its infancy and whether or not the new scheme of the Association would succeed he could not say. If they compared the way in which architectural education was managed in Germany in the big polytechnics, and in America in the big university colleges, and if they thought of the collections of casts, drawings, photographs to be found in those imposing buildings, and of the large staff of instructors—of everything, in fact, which could help and assist architectural education, and then thought of the premises of the Association in Great Marlborough-street, he thought they would agree with him that in London (and the whole of England) any one who attempted architectural education laboured under great disadvantages. Any scheme which was started should be on such a scale that it would command absolute respect from everybody who was interested in this important subject. The lecturers and instructors had laboured earnestly in the cause of architectural education, and it was a fortunate thing for the Association that it had been able to command such good men. He knew of four gentlemen, and there might be others, who had been working in the Association classes from the beginning, viz., Messrs. Pomeroy, Lewis, Farrow, and Hulme. With the toast he coupled the name of Professor F. E. Hulme.

Professor Hulme, in reply, said the labours of the instructors were labours of love. In regard to the new day classes, whatever else might be wanting to make them a success, it would not be the hearty co-operation of the teaching staff.

Professor Roger Smith then gave the toast of "The Guests," coupled with the name of Mr. G. L. Gomme, who responded.

The other toasts were "The Committee and Officers," proposed by Mr. F. T. W. Goldsmith, Mr. G. B. Carvill responding, and "The Press," proposed by Mr. F. G. F. Hooper.

BUILDING IN LEEDS.—The number of plans submitted at a meeting of the Sub-Improvements (Building Plans) Committee of the Leeds City Council, held on the 24th ult., was 158. The number of houses shown upon the plans amounted to 179. Among the larger buildings represented were those of the West Riding Union Bank in Park-row, and a new Baptist chapel and schools in Malvern-road, Holbeck. Plans of the new police-station and branch free library that the Council propose to erect at the junction of Dewsbury-road and Hunslet Hall-road, as well as plans of the last of the buildings projected by the Leeds Estates Company, Limited, were also put in. The Estates Company are about to erect a public-house in Vicar-lane in place of the Dolphin.

THE SURVEYORS' INSTITUTION:

CONFERENCE AT SOUTHAMPTON.

THE Surveyors' Institution held its country conference this year at Southampton, on Thursday and Friday last week. On Thursday the delegates had a sitting at the Hartley Institute, where the Mayor of Southampton (Alderman G. A. E. Hussey), accompanied by the Deputy-Mayor (Alderman G. J. Tilling, J.P.) and the Town Clerk, held an official reception.

His Worship, in welcoming the delegates, said he was sure it was a matter of regret to all of them that their President, Mr. John Shaw, was unable to be present that day owing to indisposition. It was a matter of congratulation to them that the President-elect, Sir John Rolleston, was able to take Mr. Shaw's place.

Sir John Rolleston, on behalf of the members of the Institution, thanked the Mayor for the reception he had given them.

The business of the conference was then proceeded with. Sir John Rolleston presided.

Mr. W. Burrough Hill, Fellow, read a paper on "Southampton, its Past and Present." Southampton 100 years ago was but a small town with possibly about 8,000 inhabitants, and now, as the preliminary report of the new census showed, it had a population of over 103,000. Southampton and district had many indications of prehistoric population, flint implements of the Early and the Late Flint Age having been discovered in the gravel beds of rivers and watercourses. An exceedingly fine and highly-finished specimen was discovered in some drainage works under his superintendence only a year or two since, and an expert in such matters gave it as his opinion that the implement probably dated from about 2000 B.C. The discoveries of Roman pottery and coins had from time to time been very numerous, but he was sorry to say that most of these relics had been sold or bartered away by the finders for a few shillings, and no carefully arranged collection had been made or preserved. He recently discovered when excavating at a depth of some few feet at Portswood, near the ancient landmark "Langhearne Gate," for the construction of roads on the Hampton Park Estate, two very fair specimens of early Roman pottery. No doubt the configuration of the whole district was altogether different in prehistoric times, and it was beyond question that Southampton possessed one of the finest harbours in England, which, owing to its position with reference to the Isle of Wight, enjoys the very exceptional advantage of a second or double tide, which practically ensured four hours of high water out of every twelve. There seemed ground for believing that Southampton existed as a British settlement in pre-Roman times, but this was little more than conjecture. The Romans doubtless first occupied the position known as Clausentum, which they made a fortified station, it being situated on a river which formed a natural highway. After some reference to the ancient history of Southampton, Mr. Burrough Hill said that Southampton was rapidly becoming a seaport of the first importance, principally owing to the enterprise of the London and South-Western Railway Company, who now owned the docks. In addition to the Empress Dock, of about 18½ acres, there was the Prince of Wales dry dock, the largest graving dock in the world. The town had many advantages, such as the parks, the magnificent Common of nearly 370 acres, with its drives, walks, cricket and golf grounds, amid beautiful gorse, fir, oak, elm, and other timber trees, approached through the fine Avenue, which all tend to make it especially attractive as a residential town as well as a seaport. The Sewerage Works, Refuse Destructor, the Electricity Works, the Electric Tram Service, the Docks, the Pier, the Ancient Walls, and many other objects of interest are all well worth a visit. The Southampton High-street, with the Above Bar-street (which was a continuation of the High-street), was one of the finest and most picturesque streets in England. In other respects Southampton enjoyed special advantages. While only about one and three-quarter hours from London, it was within a short drive of the New Forest, with its 92,000 acres of sylvan scenery of almost unrivalled beauty. The Isle of Wight could easily be reached by well-appointed steamers, and Bournemouth and Salisbury could each be reached in about an hour. Attention was called to a magnificently carved black oak chimney-piece in some business premises in the High-street. A few years since a fire occurred at these premises, and to save it from destruction this chimney-piece was torn down and thrown out of the window. Fortunately, the fire did not reach the apartment, and the greatest pains were taken in restoring the chimneypiece and the panelling to the room, which the owner was always willing to show to antiquaries and others interested in old Southampton. The picturesque and beautiful remains of Netley Abbey and Beaulieu, on the other side of the water, were referred to, and other particulars connected with the town were alluded to.

Mr. Albert Buck (Worcester) proposed a vote of thanks to Mr. Burrough Hill for his very interesting and valuable paper.

Mr. Rees (Swansea) seconded the proposition, which was agreed to.

Mr. F. J. Smith (Chairman of the Reception Committee) then read a paper on "The New Forest." In the course of his paper he stated that to the critical eye of the scientific forester the general aspect of the Forest was somewhat disappointing. Much more was expected in the direction of scientific forestry than could, under existing circumstances, be attained. To an ordinary observer it was one of the most beautiful places on earth, presenting characteristics which could not be equalled elsewhere. Its very antiquity gave it a beauty peculiar to itself. The ancient woods and wide stretches of undulating moorland commanded panoramic views of a charming country, contiguous to, or interspersed with, the well-wooded estates of private owners; but the Forest itself was singularly destitute of those sheets of water which always imparted a special beauty to woodland scenery. The open character of the Forest and its ever-changing scenery offered facilities of great variety for landscapes—over hill and dale or between the lawns and glades; but the woods taken by themselves were not so varied and picturesque, neither of the same uniform growth, nor so grand as those, for instance, at Windsor Forest and Parks, which had the distinct advantage of water in the foreground or distance. The peculiar charm of the New Forest consisted of its old naturally-grown woods, its beeches, with gnarled trunks and many leaders; wide-spreading oaks, which for the time being retain their characteristic beauty, with the constantly changing colour of their surroundings, and of the numerous species of flora. These, together with the furze and heath of several varieties, formed a round of change during spring, summer, and autumn which it would be hard to equal elsewhere. The New Forest existed in primeval times without doubt; and it was believed to be the only relic in England of the pristine forest, where Nature had been permitted to hold her own, unaided and undisturbed by the hand of man. After some historical reference to the New Forest, its physical features, together with its geological aspect, were dealt with, and allusion was made to the modern laws dealing with the Forest, as well as to the general policy of the Crown. In his general conclusions Mr. Smith said popular sentiment had made much more of the enclosing of the forest wastes than was justified by the facts. The public always enjoyed the open spaces of the Forest, and there was no intention, so far as he saw, to enclose the Forest as a whole, nor to exclude the public, who, on the passing of the Act of 1877, gained no more than they enjoyed before in the way of liberty and recreation. But so far as preserving the ancient ornamental woods was concerned, a great loss to the public was incurred, not only as regards the ornamental trees, but the ultimate amenity and value of the national property as a whole. When those trees were gone, of what value was the property without them? By all means, he urged they should preserve and maintain the Forest by sound practical methods as a national property for the benefit of the whole community, if the beneficial interest could be equitably distributed, but where interests were so conflicting and brought into opposition, it was better to sever them and dissolve the partnership, all rights being justly compensated. Preservation of some kind as an open forest was of vital importance to residents within and contiguous to the forest as affecting their interests above those of the general public; and preservation of the open character of the forest was for the purpose of maintaining the rights of the commoners at the expense of the public, which rights were of more value to those commoners

who resided in or near the forest, as compared with those who might exercise rights attached to lands situated at a distance from the forest; and again, the public generally did not derive any advantage by reason of the open ornamental character of the forest, other than that enjoyed before or after the Act of 1877; but indirectly paid very dearly for those privileges. Not only would disafforestation save the forest to the public, but would be a great boon to the commoners, especially to small holders. The paper then referred to the necessity for establishing a School of Forestry, and the exceptional advantages possessed by the Hartley College for the purpose.

Mr. A. Vernon (High Wycombe) proposed a vote of thanks to Mr. Smith for his paper.

Mr. T. A. Dixon (Northampton) seconded the proposition, and Mr. W. Burrough Hill referred to the value of some of the rights of property in the New Forest.

The proposition was carried unanimously.

Mr. Philip E. Pilditch next read a paper on "Recent Proposals for an Amendment of the Law and Practice as to Ancient Lights," which we print on another page. Mr. Horsfall (Halifax) proposed a vote of thanks to Mr. Pilditch, and the proposition having been seconded by Mr. Woodward (London) and supported by Mr. Howard Martin (London), was carried by acclamation.

An adjournment for luncheon then took place, the members proceeding to the Royal Pier at the invitation of the Mayor (Alderman G. A. E. Hussey). The Mayor presided, and was supported by Sir John F. L. Rolleston, M.P., and others.

After lunch the members returned to Hartley Institute, when Mr. Charles Pell Hall read a paper on "The Liability of Farm Fires Caused by Sparks from Railway Engines." Fires of considerable extent, involving serious losses to growing crops and plantations, were of more frequent occurrence than most people not concerned as owners or occupiers of land near a railway were aware. He suspected that many members of the Institution had practical experience of the extent of the injuries inflicted, and would be able to add materially to the available information on the subject, and testify to the necessity for the Bill introduced by Mr. Hudson and read a second time in the House of Commons this Session. Reference was made to various cases on the subject, and it was urged that the onus of proof of negligence should be placed upon the companies, instead of as now on the agriculturist.

Mr. E. Pitts Squarey (Salisbury) proposed a vote of thanks to Mr. Hall for his paper.

Mr. R. F. Sturge (Bristol) seconded the proposition, and a discussion followed, in which Messrs. French (Dublin), Jeans (Marlborough), Lynwood, C. W. Gater (Salisbury), Bowman (Cumberland), Rees and W. E. Mills (Cheshire) took part, and the proposition was carried unanimously.

Mr. Hall having replied, the proceedings terminated.

A numerous company attended the dinner of the Institution, which took place in the evening, at the South-Western Hotel. The President-elect (Sir John F. L. Rolleston, M.P.) occupied the chair in the absence of the President, and was supported by the Mayor (Alderman G. A. E. Hussey), the Deputy-Mayor (Alderman G. J. Tilling, J.P.), Sir Barrington Simeon, Bart., M.P., Colonel D. A. Johnston, R.E. (Director-General, Ordnance Survey), Lieut.-Col. Hellard, R.E., Mr. C. J. Owens (General Manager, London and South-Western Railway Company), the Rev. Canon Durst, the Hon. Gerald Lascelles (Deputy-Surveyor, New Forest), Mr. R. R. Linthorne (Town Clerk), Messrs. A. Vernon and A. Buck (Vice-Presidents), the Hon. E. G. Strutt, and Messrs. Howard Martin, G. Langridge, and W. E. Horne (members of the Council), E. P. Squarey (Past-President), F. J. Smith (Provincial Chairman), J. C. Rogers (Secretary), &c.

The following day was devoted to visits to places of interest in Southampton and neighbourhood.

Annual Meeting.

The annual general meeting of the Institution was held on Monday at No. 12, Great George-street, the President-elect, Sir John F. L. Rolleston, M.P., presiding.

Mr. Rogers, Secretary, read the thirty-third report of the Council, which stated that the number of Fellows remains the same as last year, while the total number of members is 3,200, compared with 3,096 a year ago. The Institution has lost by death during the year some of its oldest and most respected members, among them Mr. John Cross, of Manchester, who served on the Council of the Institution from 1890 to 1895, and took a large share in the successful launching and subsequent working of the Counties Palatine Provincial Committee; Mr. Edward Smyth, who served for thirteen years on the governing body of the Institution, and acted as unpaid examiner in one of the most difficult and exacting subjects for nearly twenty years; Mr. Jacob Wilson Fair, who served on the Council for several years, and also rendered valuable services as Provincial Chairman for his district; Mr. J. K. Fisher, of Market Harborough, who acted for several years as Chairman of the Leicester, Northampton, and Rutland Committee; Mr. T. D. Smellie, of Glasgow, one of the oldest members of the Institution in Scotland, being one of the first 150 to join it in 1868; Mr. J. W. Kemsley, and Mr. Joseph Goddard. The amount received during the year in Fellows' subscriptions was practically identical with that of last year, while the subscriptions of the two classes of associates and students show together an increase of slightly over 150*l.* The amount received for "hire of rooms" was about 100*l.* more than last year. The total investments, calculated at current prices, represent a sum of 13,724*l.* 19s. The support the Benevolent Fund has received during the fifteen months since its establishment, while not inconsiderable as regards amount, is not very satisfactory as regards the number of subscribers. The amount received is a little over 7,100*l.*, one-half of which has been subscribed by sixteen members and 74 per cent. by forty-four members, while the total number of contributors falls considerably short of 300 out of a possible 2,800.

"The 362 candidates who sat for the different professional examinations in March, 1901, include fifty-three candidates who, having in a previous year passed in the examination as a whole, but failed in passing their 'typical' subject, were required, in order to complete the examination qualifying for election to the class of membership for which they desired to enter, to come up again in the 'typical' subject appertaining to their division and sub-division. The number of these candidates was, in the land agency sub-division seven, all of whom passed; in the valuation sub-division twenty-nine, of whom twenty-one passed; and in the building sub-division seventeen, of whom ten passed. The number of candidates who, while obtaining the requisite pass marks in the examination as a whole, failed to pass in their 'typical' subject, and were therefore referred back to their studies in that particular subject, was thirty-three. As was the case last year, professional examinations were held contemporaneously with the English examinations, both in Scotland and in Dublin, adjusted as far as possible to special features of practice in those parts of the United Kingdom. . . . .

The Council ask the members to again join them in according hearty thanks to the honorary examiners, who have undertaken the onerous duty of setting the papers and awarding the marks in many of the most important subjects. Among these, outside the ranks of the Council, many of whom undertook to act as honorary examiners, special thanks are due to his Honour Judge Philbrick, K.C., Mr. E. J. Castle, K.C., Mr. J. W. Willis Bund, Mr. H. A. Rigg, and Mr. R. F. Colam, who undertook the legal papers, and Mr. F. Lee, Mr. C. John Mann, Mr. J. W. Penfold, Mr. E. B. l'Anson, Mr. W. Eve, Mr. Gilbert Murray, Mr. A. L. Ryde, and Mr. F. W D. Theobald. Special thanks are also due to Mr. W. Fraser, of Glasgow, who took upon himself most of the work of organising and carrying through the professional examinations in Scotland.

For some years past the Special Certificate Examinations have fallen into abeyance, the number of candidates who offered themselves being too small to justify the expense involved. In consequence of representations that the uncertainty as to the holding of these examinations in any particular year, discouraged entries, the Council determined to hold these examinations in 1900, irrespective of the number of applications for admission, with the following result:—Three candidates entered for the Forestry Examination and three for the Examination in Sanitary Science, of whom one candidate, in forestry, failed to present himself. Of the five who actually came up, two candidates in forestry and two in sanitary science satisfied the examiners. It is hoped that this result will encourage a larger entry in future years. The examinations will be held again this year, but the Council have decided that in future they shall be held triennially. . . . .

The time has arrived when the Council are able to place the members in possession of all the facts relating to the rehousing of the Institution, and, in doing so, they avail themselves of the opportunity of recording, in the briefest possible form, the various steps taken for the purpose. Soon after the building of the old lecture-hall in 1872, it became apparent that a much more comprehensive scheme would shortly have to be considered, should the Society continue to grow and prosper. For a time there was a prospect that the rehousing of the Institution would be effected, on favourable conditions, under clauses inserted for the purpose in the several Westminster Improvement Bills, but, after many vicissitudes, these Bills came to nothing, owing to the intervention of the Government, who took the question of the widening of Parliament-street into their own hands. Early in 1894 the Council felt that action could no longer be deferred. With the growth of the membership and the general enlargement of the scope of the work carried on by the Institution, the accommodation had become totally inadequate. The lecture hall was frequently overcrowded, and the extension of the library was completely stopped for lack of shelf room, while the want of reading and other rooms for general use was much felt by the members. Negotiations were consequently opened with the Ecclesiastical Commissioners, with a view to the acquisition of the two remaining houses in Little George-street, but, on consideration, the Council deemed it advisable to carry out the larger scheme of acquiring the whole block (including the corner house, No. 13, Great George-street), which would provide a site amounting in the aggregate to a little over 6,700 superficial feet. The rents received by the Commissioners for the five houses on this site, including the two already occupied by the Institution, amounted to 1,070*l.* per annum, but after protracted negotiations, conducted with great skill by the late Mr. Arthur Garrard and Mr. H. T. Steward, an agreement was finally arrived at by which the Institution was to be granted the lease of the whole site for 999 years at a rental of 1,000*l.* per annum, subject to an undertaking to rebuild the whole block according to plans to be approved by the Commissioners. Before doing so, it was necessary to buy up the intermediate lease of the house No. 4, Little George-street, which was effected for a sum of 750*l.* It was evident from the sketch plans prepared by Mr. Steward for the use of the Building Committee that a great improvement in the appearance of the new building would result from the removal of the archway and superstructure which spanned the northern end of Little George-street, one-half of it appertaining to No. 14, Great George-street, and an agreement was come to with the adjoining leaseholders, under which they surrendered their interest on consideration of a payment of 500*l.* towards the cost of rearranging the west side of their building. . . . . By September, 1895, the terms of the new lease were formally agreed upon, and designs, based upon the sketch plans prepared by the Building Committee, were invited from several eminent architects, four premiums of 100 gs. each being paid in connexion with the competition. Ultimately the designs of Mr. Alfred Waterhouse, R.A., were accepted, and immediate steps were taken to obtain tenders for the work. These varied from 31,610*l.* to 27,772*l.*, the latter, that of Messrs. Foster & Dicksee, of London and Rugby, being accepted. The amount was increased later on by additional payments of 700*l.* in respect of the employment of a special stone of greater durability than that at first specified, and by a sum of 950*l.* for extra foundations, necessitated by the treacherous nature of the subsoil. The contractors undertook to complete the building in fifteen months, but owing to a number of delays arising from various causes the building was not handed over for occupation until May, 1899—two years and eight months after the signing of the contract. . . . . It may be mentioned that the outlay on new furniture and fittings amounted approximately to a sum of 1,000*l.* It will be satisfactory to the members to know that the whole outlay has been met out of accumulated funds, and that no debt whatever remains upon the building. Everything points to the fact that the policy of rebuilding on a comprehensive scale has resulted in a great increase of prestige to the Institution, while from the point of view of material advantage it cannot be doubted that it has become the owner of a property which will in time acquire a greatly increased value, owing to the growing scarcity of building sites in the City of Westminster. . . .

There have been large additions to the library during the year, and a further outlay will shortly be made on the purchase of books. There is shelf accommodation for about 15,000 volumes. The present number of volumes is, approximately, 8,000. During the year the whole of the Law text-books have been replaced by the newest editions, and many other text-books of the kind have been added to the collection. In response to a request from some of the junior members, the Council decided, as an experiment, to open the library on every week-day evening (Saturdays excepted) from October 1 to March 31. This had already been tried on two previous occasions, with not very satisfactory results. The following figures will show to what extent the younger members have availed themselves, during the past session, of the opportunities thus afforded them.

The total number of readers who have used the library during the evening from October to March was 72, of whom 35 (say half) attended once. Twelve—or one-third of the remainder—attended twice, and the remaining 25 averaged 5½ times. The average attendance during the six months was

2·5 per night. On 16 evenings, out of a total of 112, no one attended. The library catalogue having become difficult for purposes of reference, owing to the great number of interpolations, the whole of the manuscript portion has been rewritten, and will form, with the last printed edition (that of 1893), a complete catalogue to the collections. This is a necessary preliminary step to the republication of the catalogue, which will shortly engage the attention of the Council. The forestry collections have also been carefully rearranged and catalogued, and the Council will be glad to see these collections considerably extended by gifts of timber specimens, which the members are in such an excellent position for contributing. It may be mentioned that the two geological collections, one acquired by the Council many years ago and the other recently presented by Professor C. E. Curtis, have now, with the valuable assistance of Dr. Woodward, of the Natural History Museum, been thoroughly classified and arranged in such a form as to be of real utility to the members. . . . .

During the session the Council have promised financial support to, and have nominated two of their members (Mr. A. R. Stenning and Mr. A. Vernon) to act on, a Joint Committee of the Surveyors' Institution and the Royal Institute of British Architects, appointed for the purpose of collecting and tabulating information from all parts of the country as to damage to buildings resulting from lightning, to discover, if possible, how far buildings are rendered lightning-proof by modern systems of protection, and to ascertain what improved methods might be adopted. It is hoped that the members of the Institution in various parts of the country will assist the Committee by agreeing to act as observers, so that actual details, noted on the spot, may be forthcoming. Communications should be addressed to the Secretary of the Lightning Research Committee, 9, Conduit-street, W.

The Council also decided during the session to co-operate with the Royal Institute of British Architects on a Joint Committee with reference to the amendment of the law and practice as to ancient lights, appointing as their representatives on the Committee Mr. H. T. Steward, Mr. A. R. Stenning, Mr. H. Chatfeild Clarke, and Mr. G. M. Freeman, K.C., all of whom devoted a great deal of time to the consideration of the subject. As the result of their deliberations, the Committee decided to draft a Bill for introduction into Parliament, and the Council have agreed to share (up to a certain amount) with the Royal Institute of British Architects the expense involved. The draft will come up for consideration very shortly.

The number of applications from members requiring assistants, and from the latter seeking professional employment, has been about the same as last year. . . . The number of names at present on the register is about seventy."

The report and balance-sheet having been adopted, a vote of thanks was accorded to Messrs. H. C. Newmarch and C. P. Hall for their services as auditors.

Mr. Howard Chatfeild Clarke moved a vote of thanks to the President, Vice-Presidents, and other members and Associates of Council, for the able manner in which they had carried on the affairs of the Institution.

Mr. King seconded the motion, which was agreed to.

The Chairman (the President-elect) replied and thanked the members for electing him as President for the ensuing year of office; after which Mr. Squarey, past-President, invested the Chairman with the Presidential chain of office.

A hearty vote of thanks was then accorded to Mr. J. W. Penfold, Hon. Secretary, and Mr. Julian C. Rogers, Secretary, for their services during the past year; and these gentlemen having replied, the Chairman delivered the prizes to the successful students, as follows:—

The "Institution" Prize of the value of fifteen guineas was awarded to Mr. Montague Price Holmes, a "Valuation" candidate in Division II., who obtained 794 out of a possible 1,000 marks.

The "Special" Prize of the value of ten guineas was gained by Mr. Frederick Stanley Daniell, a candidate in the "Valuation" Sub-Division of Division II., with 765 out of a possible 1,000 marks.

The "Crawter" Prize, awarded for the best work in the subject "Valuations" by a candidate in Division IV., was awarded to Mr. Herbert Andrew Cromartie Warmington, who obtained 86 per cent. of the possible marks.

The "Penfold" Gold Medal was this year won by Mr. William Edward Trent, who, in the "Building" Sub-Division of Division IV., headed the list of Fellowship candidates with a total of 802 out of a possible 1,000.

The "Penfold" Silver Medal, given to the candidate who, in either Division II. or Division III., obtained the highest proportionate number of marks, was awarded to Mr. David Llewellyn Paton, a candidate in Sub-Division II. of Division III., who also gained

The "Driver" Prize of the value of 15*l.*, awarded to the candidate heading the list in the Division III. (direct Professional Associateship) examination. This candidate obtained 976 out of a possible 1,200 marks.

The "Daniel Watney" Prize of 10*l.* was awarded in connexion with the Special Certificate Examination in Forestry to Leslie Stuart Wood.

For the "Preliminary" Prize Messrs. W. C. Clemens and A. Salwey were bracketed equal at the head of the list in the Studentship Examination with 468 marks out of a possible 500, and a "Preliminary" Prize in connexion with that examination was awarded to each.

A vote of thanks to the Chairman concluded the proceedings.

ASSOCIATION OF MUNICIPAL AND COUNTY ENGINEERS.

A HOME Counties District Meeting of the members of the Association of Municipal and County Engineers was held at Chichester on Saturday, June 1. The members assembled in the Council Chamber of the Town Hall, where they were received and welcomed by the Mayor (Mr. R. Coombe Miller) and the members of the Corporation. Mr. C. H. Lowe (Hampstead), President, occupied the chair, and among those present were Messrs. Radford (Putney), Norrington (Westminster), Winter (Poplar), F. J. C. May (Brighton), R. J. Thomas (Aylesbury), Dyer (Southampton), Catt (Hayling), and others.

The Mayor welcomed the members of the Association, remarking that their work was of the utmost practical utility.

The President briefly acknowledged the reception accorded to the Association on the occasion of their first visit to Chichester, and said they wished to convey their best thanks to the Corporation for the use of the Council Chamber.

Mr. Thomas, district secretary, informed the members that he had received a letter from Mr. Stallard, who was at Bloemfontein, acknowledging the congratulatory message forwarded by the Wimbledon meeting on his departure to South Africa on active service.

Mr. J. Saunders, A.R.I.B.A., City Surveyor, then read a paper on "Municipal Engineering Works in Chichester." He said the question of restoring the Market Cross had been continually under discussion, and the Committee of the Council were now again considering its state and would shortly report on the matter. The Corporation owned a quay situated in the Chichester harbour, and vessels of 350 tons burden could be berthed. There was a very good trade in corn, coal, &c., and about 100*l.* yearly was handed over from the dues in relief of the borough rate. At the request of the Council, the author had prepared a scheme for enlarging the quay, dredging the channel, erecting new stores, and other works, and it was now under consideration. The Corporation also owned a navigable canal, joining the city with the Chichester harbour; it was about 4¼ miles long, had two locks, and an extensive basin with commodious wharfs and storeyards on the southern side of the city. In 1890 the Corporation erected an isolation hospital at a cost of 2,230*l.*, on lines suggested by the Local Government Board. There were two large wards, each 24 ft. by 18 ft. by 12 ft. high, and two small wards each 18 ft. by 12 ft. by 12 ft. high, with kitchens, caretakers' house, laundry, mortuary, disinfecting rooms, &c. Previously to 1894 the city was without any drainage system, the general method of disposal of the sewage being by turning it into soaking cesspools. A scheme by Mr. Baldwin Latham was accepted, the sewers, nineteen miles in length, being designed to take sewage only, the surface water passing through old drains into the Lavant course.

Every house was disconnected from the main sewers by a special form of interceptor trap, having an air inlet in the pavement opposite, the far end of the drain being carried up as a ventilating shaft. A considerable number of complaints respecting these air-inlets had been received, and occasionally, during particular atmospheric conditions, the air-inlets acted as outlets, and the emanations from the house drains offended the pedestrians in the streets. In all fairness, it should however be stated that every case of nuisance arising from the gratings had invariably been found to be caused by the house drains being improperly flushed. The outfall works were about a mile and a half west of the city and occupied about 10 acres of ground.

The sewage first entered a salmon ladder running the whole length of the buildings. In its course lime-water at the rate of three grains of lime per gallon of sewage was added first, to render the sewage slightly alkaline, and further down the salmon ladder alumina ferric at the rate of three grains per gallon was also added, the whole passing then through a rough screen into the precipitation tanks, of which there are three, each measuring 55 ft. 6 in. by 20 ft. by 5 ft. averaged depth. Two of these were worked each day while one was being cleaned, the sludge being pumped up by chain pumps, and lime added in a mixing pit at the rate of 1 cwt. to 100 gallons of sludge. This was afterwards forced with direct-acting pumps into sludge presses. The averaged dry weather flow of sewage was about 300,000 gallons per day, the amount of pressed cake being about 24 tons per week, and about half a ton of rough screenings per day was taken off the gratings. The tank effluent was afterwards passed over about six acres of land, laid out on the ridge and furrow system and retained in a tidal storage tank, holding about 320,000 gallons, until the tide commenced to ebb, when it was discharged. The ground had been cultivated, and last year a very good crop of mangolds, cabbages, broccoli, white carrots, &c., was grown, the value realising about 80*l.*, and this about covered the working expenses. The effluent passed into the Chichester harbour through a 21-in. pipe by means of a penstock valve and tidal flap. The harbour is of great extent, and was subject to a tidal change of about 24,000,000,000 gallons per day.

At the conclusion of the paper Mr. Saunders appealed to the members not to discuss the sewage disposal works in any way, as the Corporation were engaged in litigation in reference thereto, and the case was coming before the Courts in a week's time.

The President promised that the members would respect the wish of Mr. Saunders, and not discuss the sewage question in any way.

Mr. Yabbicomb (Bristol) in moving a vote of thanks to Mr. Saunders for his paper, said that Chichester was to be congratulated upon having a Corporation so energetic and so appreciative of the necessities of modern life as to carry out all the important and useful works which Mr. Saunders had described. He would like to know if the isolation hospital as described in the paper had complied with the Local Government Board requirements (Mr. Saunders: "Yes."). Mr. Yabbicomb said he was interested as he was building an isolation hospital, and he considered that Chichester had a hospital built on very economical lines.

Mr. May (Brighton), who seconded, remarked that the works were so admirably explained that they did not lay themselves open to criticism.

Mr. R. J. Thomas (Aylesbury) congratulated Mr. Saunders upon the state of his roads—their condition and the smoothness of their surface.

Mr. Catt asked why the ancient city gateways had been demolished.

The President congratulated the city upon the preservation of its canals. In many parts of the country sufficient use was not made of the canals. Canal transit was cheap, if it was slow, but there was some transit where time was not an object in the bargain.

Mr. Saunders, in reply, said he believed the gateways were pulled down because their maintenance was an expense to the city. He believed the citizens in those days used to spend their money in riotous living. They could find in the old minute-books entries like this: "The Council made merry," and that was about the time the gateways were pulled down. On the coronation of Queen Anne they made the conduit-pipes which supplied the town with water run with wine.

The members dined together at the Assembly Rooms, under the presidency of Mr. Lowe, and the afternoon was devoted to a round of visits to the various public works.

CARNEGIE PUBLIC LIBRARY, KEIGHLEY.—One hundred and forty-six designs were sent in in this competition, and the assessor, Mr. Leonard Stokes, has awarded the first premium to Messrs. McKewan & Swan, Birmingham.

RECENT PROPOSALS FOR AN AMENDMENT OF THE LAW AND PRACTICE AS TO ANCIENT LIGHTS.*

THE purport of this paper is to give a brief account of the efforts that are being made to bring about an amendment on that subject of perennial interest to most surveyors, provincial as well as metropolitan, the law and practice of Ancient Lights, and to discuss the proposals formulated.

It is, I think, generally agreed that the great body of case law which has been built up upon the basis of the simple enactment on the Prescription Act of 1832, that "when the access and use of light to and for any dwelling-house, workshop, or other building shall have been actually enjoyed therewith for the full period of twenty years without interruption, the right thereto shall be deemed absolute and indefeasible," includes many judgments difficult to reconcile with one another, and that there is not to be deduced from them anything like a clear or definite rule by which the owner of an ancient light on the one hand, and the owner of property adjoining, upon which buildings are about to be erected or increased in size, on the other, are able to ascertain what are really their respective rights and to what limitations these rights are subject.

The position of the doctrine of the 45 deg.; the claim to a right for a special quantity of light for extraordinary purposes; the definition of what is meant by material and substantial injury to lights; the question as to whether, if sufficient light be left, it matters as to how much, beyond that sufficiency, is taken away—all these questions and others seem apparently to be insoluble by the Courts and constitute a fruitful field for the production of differences and disputes between building-owners and the owners of ancient lights, and the cause of constant recourse to the Courts at considerable expense in money, time, inconvenience, and irritation, by way of injunctions to retain or actions for damages, with, in many cases, results which are satisfactory to neither party. Some have indeed gone further than this in their complaints of the state of the law, and have contended that the power given to the owner of even a very small and unimportant light to restrict or in any case delay the erection of important buildings, has led to serious hardships, and has in some cases opened the door to what can be described as little short of blackmailing operations. And it is clear to anybody who has much to do with light and air cases in the Courts that it is difficult for the ordinary legal tribunals to deal with these technical questions without great waste of time, and in many cases uncertainty as to substantial justice being done.

Actuated by these considerations, the Royal Institute of British Architects in the beginning of 1900 came to the opinion that an alteration in the law of Ancient Lights was urgently needed, and placed itself in communication with the Surveyors' Institution, and the two bodies appointed a Joint Committee which made a Report on the subject at the end of 1900, which most of those present have probably seen.

The contents of that Report may be summarised as follows:—

In the first place, it is proposed to limit the right of the owner of an ancient light, where such right has not already been acquired, to a right to receive light sufficient for all ordinary purposes, but not to include a right to an extraordinary amount for special purposes.

In the second place, the difficulty which is sometimes experienced of obstructing a light which would otherwise in the course of time gain dominant rights is obviated by it being placed within the power of the owner of adjoining property over which such rights would, if acquired, be exercised, to give a legal notice to have the same effect as though such obstruction had been put up and submitted to for one year.

In the third place, there is a provision for certification and registration of the plans of buildings about to be pulled down, and I suppose, although the Report does not distinctly say so, the identification of ancient lights existent in the old buildings.

In the fourth place, there is a provision that no building erected after January 1, 1905, shall acquire any further rights of light and air where it abuts on any way used by the public as an access to various tenements.

In the fifth place (and this constitutes one of the most important parts of the Report), provision is made for the settlement of differences arising between a building-owner and the owner of adjoining ancient lights by means of a tribune formed of the surveyor for either party or of their umpire, with power to the umpire of determining "the right of the building-owner to carry out his intended works, the alteration (if any) necessary to be made in carrying out the proposed new buildings or alterations to prevent or lessen the obstructions complained of, and the amount (if any) of compensation of every description to be made to the owner, lessee, or occupier, the alterations or improvements to the adjoining premises by light-reflecting surfaces, enlargement of lights, heightening of premises, or other means, the amount of costs to be paid by each or either party, and generally all matters required to arrive at a settlement."

And there is a provision for an appeal to a committee consisting of an architect, a surveyor, and a barrister with power to decide whether and to what extent the proposed new buildings shall be amended or the dominant premises altered. In any case in which a larger sum than 500*l.* is awarded either in money, damage, or works, or in which the interference with the proposed works exceeds 500*l.* in value, there is power of appeal to the High Court. Then side by side with the powers just previously described given to the surveyors, the tribunal, and the High Court there is, in the sixth place, a provision that in any action to restrain a building on the ground of its interference with rights of light, and whether an interim injunction has been obtained or not, either party may apply to a judge either to hear the same with an assessor or assessors, or to refer it to arbitration in the manner before provided.

This Report is in process of being drafted as a Bill, which will then be taken into consideration by the Council of the Incorporated Law Society with the view of the co-operation of that body being obtained. It will be seen, therefore, that the proposals which have been made really amount to this:—

The basis of the law is so far defined as to eliminate from the rights of an adjoining owner any right to light for extraordinary purposes, and to limit them to a right to receive light sufficient for all ordinary purposes, and that the settlement of the question which may arise as to whether sufficient light has been left for all ordinary purposes may either proceed in a way similar to that obtaining in the case of party-walls under the London Building Act (except that the third surveyor or architect called in on light and air cases is to be an independent umpire and not to act in conjunction with one or both of the *ex parte* surveyors), with an appeal to a technical committee, and beyond that to the High Court; or apparently he may still proceed in the old way by an application for an injunction to restrain, which may be referred by the judge to the arbitration before described if it appears to him the claim may be satisfied by damages. This, put briefly, is what the present proposals amount to, but before saying a few words upon them, it may be useful to make some remarks upon the more important of the recent cases which have occupied the Courts which exemplify the accuracy of the view that some simplification of the legal basis for our practice in the subject is absolutely essential.

In the Appeal Court case of Brown *v* Collings, which was decided in 1899, the Master of the Rolls, Lords Justices Rigby and Vaughan Williams concurring, said "it was a question of degree whether there had been such obstruction or diminution of light as to render the premises uncomfortable or unfit for the ordinary purposes of habitation or of carrying on business. He came to the conclusion that a considerable quantity of light which had formerly access to the plaintiff's windows had been cut off by reason of the defendant's building. There ought to be an injunction to compel the defendant to pull down so much of his building as obstructed the access of light as previously enjoyed in the plaintiff's buildings." This was a case where the offending building was to be from 60 ft. to 70 ft. distant from the ancient lights, and the extreme height of same from ground to top of gable was 44 ft. and no more. A portion of the offending wall would have been 32 ft. high, and the Master of the Rolls in his judgment said he thought the defendant's building should not be above 25 ft. high, and subsequent words he used indicated that it was his opinion that it was not enough to consider whether the plaintiff had a sufficient quantity of light left, but that what had to be considered was the amount taken away. This seems to be a strong judgment in favour of the contention that the owner of an ancient light is entitled to all the light he has enjoyed through it for the statutory period.

It was not many months, however, before a decision embodying quite different principles was given by Mr. Justice Wright, who held, in the case of Warren *v.* Brown, that a house is not necessarily entitled "to have all, or substantially all, the same light coming to its windows as during the twenty years," as this would impose on servient tenements an unreasonable burden and might involve grave public inconveniences. Nor, if that were law, could there well be any presumption that so long as 45 deg. of light, or some approximate angle, is left there is no actionable wrong." The judge, therefore, having found that there was sufficient light left for all ordinary purposes of inhabitancy or business, nonsuited the plaintiff and apparently resuscitated the 45-deg. angle theory in a great measure.

This judgment was followed by Mr. Justice Joyce, who held in the case of the Home and Colonial Stores, Limited, *v.* Colls, in a case where the back part of rooms enjoying light through an ancient window was so dark as to have needed artificial light on ordinary days, but where the remainder of the plaintiffs' premises would, after the erection of the defendant's building, be well and sufficiently lighted for all ordinary purposes, non-suited the plaintiffs, although it was shown that they would lose a considerable quantity of the light they had previously enjoyed, feeling bound, as he stated, to follow the decision in the case of Warren *v.* Brown until it was upset.

Apparently the Appeal Court case of Brown *v.* Collings did not seem to be available for use by either of these judges in arriving at their decisions; there is no reference to it either in the arguments or judgments. I understand that both judgments are to be appealed against.

A subsequent case in which I was engaged, and which occupied one of the judges abovementioned the better part of three days, rests at the present moment upon an expression of opinion by the judge, in which a distinction was drawn which appears to modify to a great extent in certain cases the dictum laid down in the last two-mentioned cases, but under the circumstances I cannot say more than that at the moment.

I do not quote these cases as giving in any way an exhaustive description of the tendency of recent cases, but simply as indications of how complicated the question has become and how impossible it is for a layman, even though he possesses the technical knowledge which the practising surveyor or architect should have, to guide his clients as to what he is in building entitled to do, or what, if the owner of an ancient light, he has the power to prevent his neighbour doing; and I think they show very clearly that some such proposals as those now made are very desirable in the interests of all owners of property.

Some of these proposals appear to me to demand consideration. That part of the preliminary proposition which provides that no right may be acquired to an extraordinary amount of light for special purposes would most certainly have been the subject of animadversion on the part of that section of the community who habitually use light for special purposes, such as watchmakers, goldsmiths, precious stone merchants, and those utilising processes necessitating discrimination in the selection of colours, who in some cases might find the amount of light they have enjoyed reduced, much to their disadvantage, but the sting of the proposition is removed by its not being made retrospective, but only to take effect on the acquisition of subsequent rights, and I think upon the whole the proposition is to the public advantage in permitting the utilisation of sites which under the present law may have to remain vacant or only to be built upon in a limited way, though in some instances there is no doubt that it may be the cause of a certain amount of loss on the part of individuals.

The other part of the first proposition, stating that no new rights of light may be acquired beyond a right to receive light for all ordinary purposes, seems to me somewhat ambiguous, as

* A paper by Mr. Philip E. Pilditch read on Thursday last week at the Conference of the Surveyors' Institution at Southampton.

it may be read either in the limited sense of providing for ordinary light only as an antithesis to extraordinary light, or it may be read as providing that if sufficient light be left for all ordinary purposes there can be no claim, even though a substantial and material quantity of the light previously enjoyed be taken away. If the latter be meant, which I think most likely, then the proposition is far-reaching in its character, and extends to a complete alteration of the law as laid down in many cases, and will permit for the future considerable and material obstruction of light in cases where the windows have not yet become ancient, so long as, in the opinion of the tribunal, sufficient light be left for ordinary purposes. It is as well that the full significance of the change should be appreciated, for it would mean that in all cases where a light is less than nineteen years old the rule of law affecting it would be much more stringent in favour of the servient tenement than in the case of a light already ancient.

Upon the whole I think the change is to the public benefit, though at the same time I think any change permitting the building of higher buildings and the filling-up of spaces now kept open by the existence of the present law of Ancient Lights will not necessarily be an unmixed advantage, as witness the tendency of modern building legislation. Possibly the removal of this restriction upon the right to build may have a sequel in the further strengthening of that legislation, which now bears more lightly upon buildings in settled closely built over districts than in new ones. It is, I think, better that the regulation of buildings in this respect should be a matter of public regulation than of private arrangement, but I am not sure that all property owners will agree with this, or that those most desirous of the proposed change in the law appreciate what the result may be.

The second and third propositions need no recommendation.

The fourth, however, is one which seems to me to need careful consideration, especially the part of it which provides that no further rights of light shall be acquired by a building erected after January 1, 1905, abutting upon a way used "as an access to various tenements," for this apparently would give the right to a building-owner to absolutely obstruct the whole of the light coming to a window only a few feet away, simply because it happened to be on the other side of a passage-way, and the same objection applies, indeed, to such a right being given to the owner of property abutting upon a public way where that way is narrow, and where, consequently, the same state of affairs exists as I have just described.

It appears to me that if this provision limiting the rights of the owner of an ancient light because it abuts upon a way is adopted at all (I hardly see why such a light should be differentiated from all other lights) there ought to be a provision limiting its operation to cases where the way in question is of a certain minimum width. Moreover, unless I have read the second proposition and this inaccurately, this one is not needed, as the second would give the owner of each tenement the right to prevent the other from acquiring rights over his property by notice, unless there be some virtue in the words "not at the time servient to some neighbouring tenement" in the second proposition. I think both suggestions need making clearer, but this will doubtless be done in the Bill.

The most important of the propositions referred to, viz., the 5th is, I think, likely to be very beneficial in its operation.

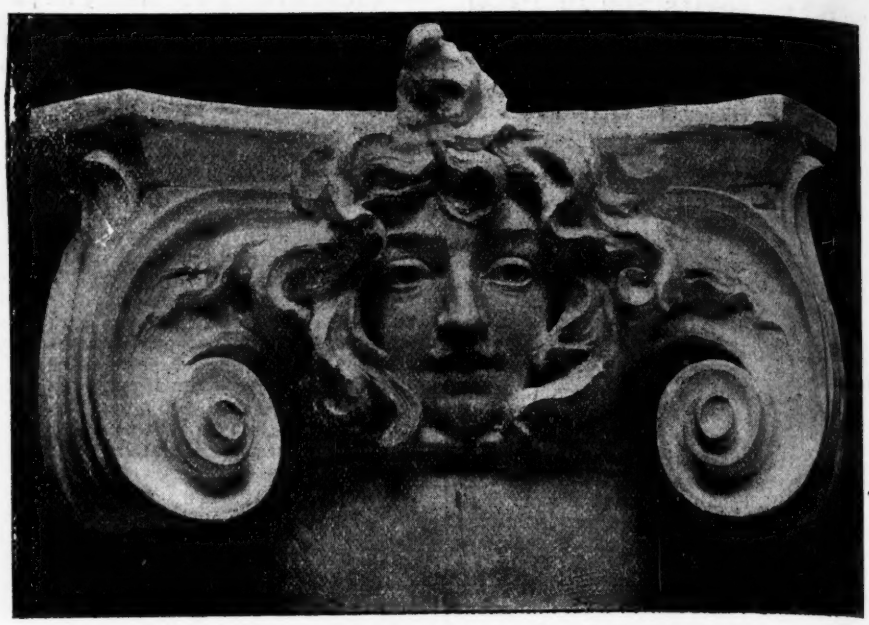
All of us who have practised in London have had experience of the ease and expedition with which matters concerning party-walls are habitually dealt with under the similar provisions in the party-wall sections of the London Building Act, and I feel convinced there is nothing in the subject of light and air which will render it impossible to do in such cases what has been done with so much advantage to all concerned in party-wall cases.

On most of the large London estates the custom now obtains of reserving all rights to light when granting a new lease, leaving questions of light and air arising between different lessees on the same estate to be settled by the arbitrament of the estate surveyor or architect, and on two such estates with which I am so connected the custom has been found in practice to work admirably. No lessee is hampered by trivial objections, and on the other hand a building lessee is not allowed to ride roughshod over his neighbour's rights, but an opportunity is afforded the estate surveyor of seeing substantial justice done.

It will be observed that by the sixth proposal it is still open to an aggrieved owner of an ancient light to apply to the High Court for an injunction, and the Court has it within its discretion, in cases where it considers justice will not be met by a reference to arbitration, to decide what may be done or what compensation should be made, to grant an injunction to prevent the erection of the buildings complained of.

It is in the existence of a tribunal to which, if it appears that the case in question is not of this far-reaching nature, the Courts may have confidence in transferring a settlement of such matters that the proposals now made have their chief value, and it is in my opinion very clear that one consequence will flow from the existence of this tribunal—viz., that a claimant having no solid or serious claim will hesitate before applying for an injunction, which has been so freely done in the past, when the building-owner has so often had to compromise because of the delays to which he would otherwise be subjected, especially as it is now made clear in black and white that if the judge considers an action for an injunction has been commenced unreasonably or unnecessarily he may order the party bringing such action to pay the defendant's expenses and costs on such scale as he may think fit.

In conclusion, I think the proposals made, with some modifications, will, if embodied in an Act, tend to simplify the operations of building and rebuilding in London without any undue interference with the existing rights of individuals, or with the weal of the body politic, and I trust they may soon be given effect to.



Capital, Scarborough Technical Schools. Mr. H. C. Fehr, Sculptor.

COMPETITIONS.

SCHOOL, NEW BROMPTON.—The Gillingham and Grange U.D. School Board advertised in April for designs for a proposed new school in Richmond-road, New Brompton, and in response a number of plans were sent in. The result has just been made known, as follows:—(1) Mr. J. D. Pearson, 27, Chancery-lane, London (1901); (2) Messrs. Newton, Son, and Lawson, 14, Victoria-street, Morecambe (Hotspur); (3) Messrs. Greenhalgh & Brockbank, Broad-street House, London, E.C. (Utility with Economy); (4) Mr. F. M. Kirby, Greenhithe, Kent (North Light). Mr. Pearson has been appointed to carry out the work.

HOUSE AT BARNT GREEN, WORCESTERSHIRE.—Messrs. Bateman & Bateman write to say, in regard to the description and illustration of their house in our last issue, that they had been under the impression that we asked for a description of their design in the Royal Academy, under the same title, but representing another house, and that their description applied to the one in the Academy, not to the one we published last week. The two houses are very similar in general character, and therefore we did not notice any discrepancy.

Illustrations.

PULPIT, SANTA CROCE, FLORENCE.

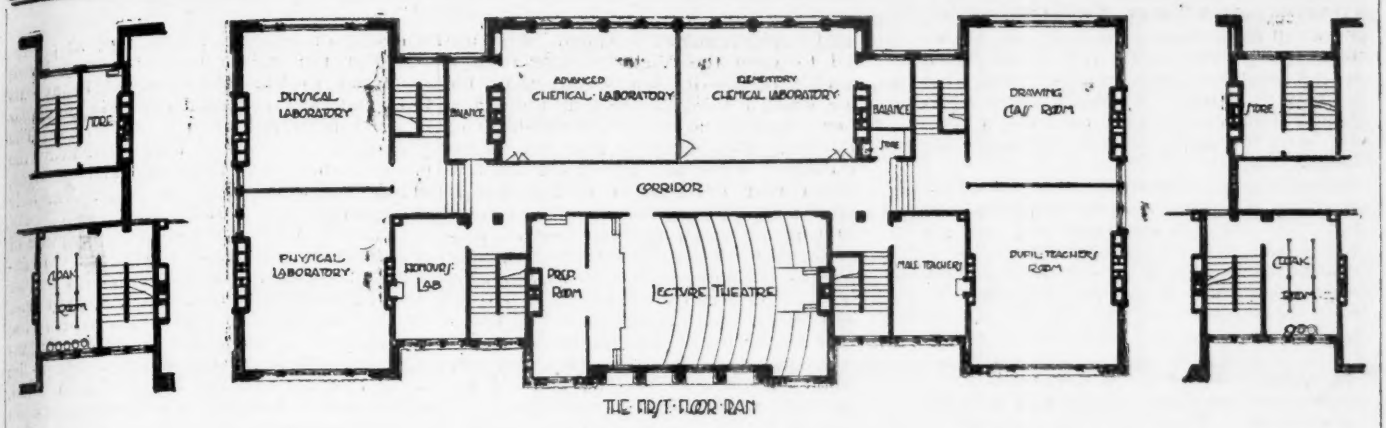
THIS pulpit was the work of Benedetto da Maiano. Vasari, in his life of this artist, thus describes it:—"Returning to Florence, he did the present marble pulpit of S. Croce for Pietro Mellino, a citizen and wealthy merchant, considered a work of rare merit, the very best of its kind. It contains in small marble figures stories of St. Francis, executed with such skill and diligence that nothing better could be desired, as he has carved there trees, rocks, houses, perspectives, and other things marvellously. . . . . It is said that while this work was in progress he had difficulties with the wardens, for he wished the pulpit to stand against one of the columns which bear the arches supporting the roof, and to cut away the column to make the steps and entrance to the pulpit, and they would not consent, thinking that this would so enfeeble the column that the destruction of the church would ensue. But after Il Mellino had given security that the work would be finished without any harm being done to the church they were satisfied. Accordingly, Benedetto strengthened the part of the column carrying the pulpit with bronze supports, and introduced the steps to mount into it. In proportion as he hollowed out the interior he strengthened the exterior with hard stone, as may be seen, and he completed the work to the amazement of all who saw it, for it possesses the utmost perfection in every part."

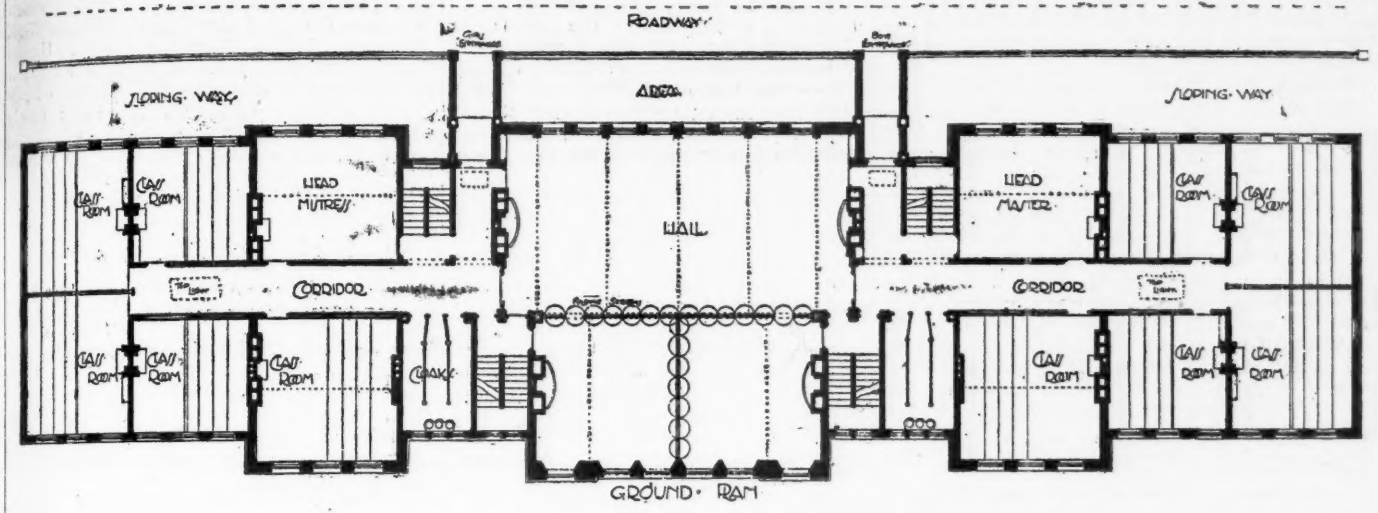
TECHNICAL SCHOOLS, SCARBOROUGH

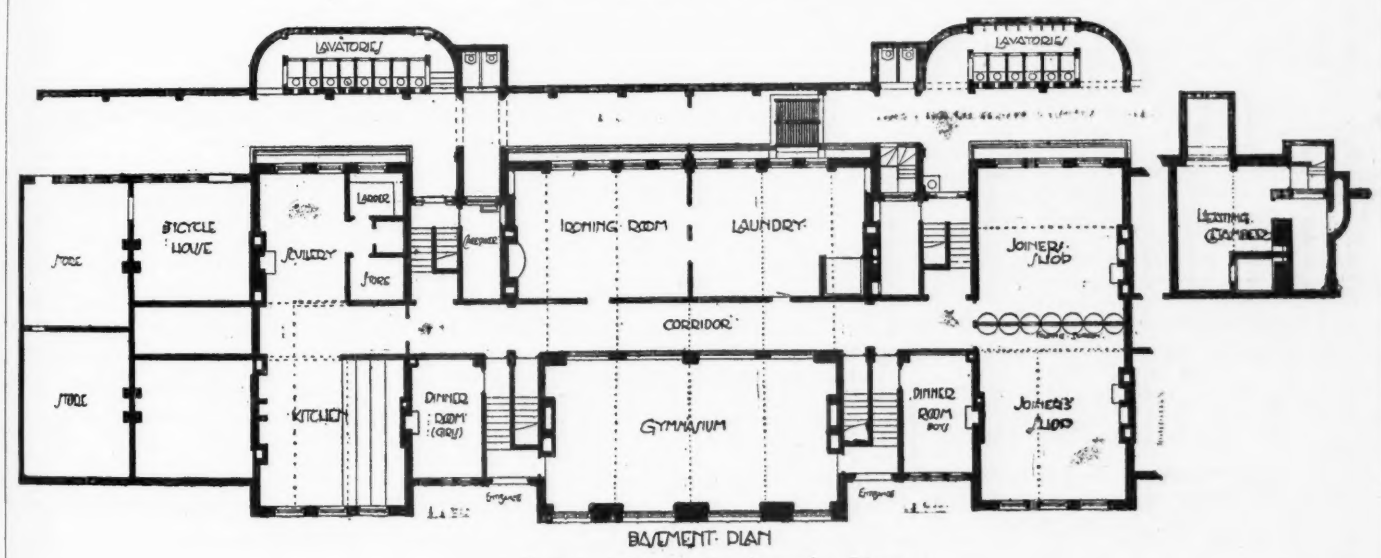
WE give this week several illustrations of the new Technical Schools at Scarborough, of which Messrs. Hall, Cooper, & Davis are the architects.

The plans were selected in an open competition in which thirty-six designs were submitted. The completion of the building has occupied about four years.

Its situation rendered it essential that the levels should be very carefully considered, having in view the great fall in the ground. The plan of the schools was arranged with the idea of avoiding, as far as practical, unnecessary cost in the construction of the foundations. The northern side of the site has been levelled, and forms the approach, directly connected with the Valley Bridge-road at the north-east corner. The boys' and girls' main entrances are placed on the approach road, and are connected to the schools by bridges placed across the area which is formed to light the basement. Entrances for both boys and girls are also placed on the south side of the site entering direct from the public park. A portion of the site on the south side of the buildings has been levelled off and asphalted for the purposes of a playground, whilst it is proposed to lay out the remaining portion of the site in terraces, lawns, and walks.







Technical Schools, Scarborough. Plans.

The basement is 14 ft. high in the clear, and one of its features is a gymnasium, 20 ft. high, reached from both playgrounds by means of boys' and girls' open porch and a separate staircase. There is also a complete laundry, consisting of ironing and washing rooms, with dryers, for the instruction of forty girls in two classes. Immediately adjoining this is the cookery kitchen, with scullery and pantries abutting on the girls' main staircase. There is accommodation in the cooking kitchen for thirty-six girls, and it is fitted with gas stoves and open fireplaces, and all necessary shelving, tables, cooking utensils, and requisites for the instruction classes.

Towards the east side are two dining-rooms for twelve children each, accessible from the respective playgrounds. Adjoining the boys' dining-room is a spare classroom, and immediately adjoining this is a joiner's shop, with accommodation for forty boys. There are also unpacking-rooms, storeroom, cloakroom, and lavatory for each department using this floor. A caretaker's room, a boiler-house, heating chamber, &c., are also provided for.

The ground floor is 15 ft. 9 in. in the clear, and is fireproof. The boys' and girls' main entrances are connected with the new approach road by bridges spanning the areas. Two cloakrooms adjoin the main entrance each having 300 pegs and lavatory basins. There are on this floor four classrooms with accommodation for forty; there are four with accommodation for fifty; and four with accommodation for sixty, making a total of twelve classrooms with accommodation for a total of 600 children. Each classroom is provided with book cupboards, with sliding doors, arranged in recesses in internal walls. Out of the twelve classrooms provided, ten face the south.*

The central hall, of which we gave a view, covers a superficial area of about 3,600 ft., and can be used for a variety of purposes. The fireplaces (see illustration) are built up of red Sussex brick and white stone, and a panelled white dado, 9 ft. high, runs round the entrance hall, with a dentil cornice on the top. Above this the walls are lined with red Sussex rubber brick, which runs up and joins the ceiling and cornice, which is in plaster. On one side of the central hall is to be found the headmaster's room, anteroom, packing store, with lift communicating, and on the other side the school lavatory.

On the upper floor there are two rooms for assistant teachers—one for each sex—placed over the cloakrooms, and reaching from the second half-pace of the main stairs. There is also a classroom for pupil teachers' instruction, containing 480 superficial feet. A chemical laboratory is provided, with fifty benches divided by glazed partitions into sections, and a room for honours work, the whole being fitted up to the regulations of the Science and Art Department with fume cupboards, blackboards, and stores for re-agents, &c. There is a small balance-room overlooked from the chemical laboratory properly fitted up with glass cases, working table, and draught closet. A physical laboratory for thirty-two students is provided, and is divided into two sections by a screen. There is a lecture-room to accommodate 100 students, provided with demonstration-table and platform, and lantern platform, with shutters to the windows for darkening the room during the lantern lectures. A preparation room is connected with the lecture theatre. There is a drawing classroom with top and north studio

* This is the architects' description, and we presume the school authorities had an opinion in favour of a south aspect for classrooms. We can only say that we think it a serious mistake. South aspect for dayroom or playroom is quite right, but not for a lesson-room.—ED.

light to accommodate sixty elementary students, and a small classroom for the same purpose for advanced students. These rooms are placed near the boys' staircase, but are accessible from the other staircases. Besides a spare classroom, with accommodation for sixty, a book store, with lift and caretaker's cupboard, are provided.

The latrines are separated from the school and placed under the roadway adjoining the area. They are well ventilated, and have the latest approved sanitary appliances.

The whole building is warmed by open fires and steam radiators at low pressure, the work having been carried out by Messrs. W. Richardson & Co., of Darlington. The school is ventilated by a system of natural ventilation with extra shafts from each room, with inlets at the ceiling and floor levels, and carried into the roof ventilator. There are fresh air inlets at the window levels direct from the outside, passing through steam radiators, the rooms on the top floors having extractors in the ceilings. The building is lighted by sash windows, all of which are made to open.

So far as the erection of the school is concerned, all the contracts were let locally. Mr. James Oates carried out the excavation, brick, and stone; Mr. Hugh Proctor, the plastering; Mr. Geo. Scales, the carpentery and joinery; Mr. Jos. Hardgrave, the red brick tiling; Mr. Thos. Fidler, the painting; and Messrs. Tindall & Williams, the plumbing and glazing. Mr. G. F. Wells, of Scarborough, installed the electric light; Mr. Harry Pickup, of Scarborough, did the ordinary smith work; Messrs. Homan & Rodgers, of Manchester, have done the whole of the fireproof construction floors; and all the movable screens have been made by the North of England School Furnishing Company, according to their own patent. The fittings of the laboratories and scholars' desks are by the Bennett Furnishing Company, Glasgow. The teachers' desks and the fittings in the manual instruction room were supplied by Messrs. Illingworth, of Leeds, and the laundry was fitted by Messrs. Summerscales, of Halifax.

In addition to the practical building work and fitting, the architects desired to have the building adorned with sculpture having some reference to its objects, and they wisely went to an eminent sculptor, Mr. H. C. Fehr. He modelled the five panels which are illustrated in a separate plate. In that illustrating "Chemistry," the central figure is a likeness of Priestley; in "Engineering," that of James Watt; in "Astronomy," Herschel, and we presume the female figure is meant for that of his indefatigable sister, who with him carried on the business of comet hunting through many a laborious night; and in "Architecture" we have Wren as the principal figure. "Literature" the sculptor has chosen to represent entirely by women students, perhaps because it is intended specially for the girls' side of the school; a corresponding panel is to symbolise "Music."

As a separate illustration we give that of one of the capitals of the small order which forms an ornament to a portion of the south elevation; this is also Mr. Fehr's work.

We give also the plans of the three principal floors.

ARCHITECTURAL SOCIETIES.

DEVON AND EXETER ARCHITECTURAL SOCIETY.—The annual meeting of the Devon and Exeter Architectural Society was held at Plymouth on Saturday, the 1st inst. The President, Mr. C. J. Tait, occupied the chair. There were also present Messrs. H. G. Luff, Charles King, Edmund Sedding, M. Alton Bazeley, A. S. Parker, Octavius Ralling, B. P. Shires, A. Heath, W. W. Hitchins, S. Griffin, A. E. Lethbridge, E. Coath Adams, R. A. Mill, A. Tucker, Harold Watts, G. Murray, and Harbottle Reed (Hon. Secretary). It was resolved that a subscription of three guineas and a donation of two guineas be made in response to the special appeal for the Architects' Benevolent Fund. The retiring President (Mr. Tait) then delivered an address. In the course of his remarks he said:—"The event for which this year will be chiefly memorable will be in the minds of us all—the death of the late Queen. . . . Upon anything that occupies a position so near to us as the Victorian era it is impossible to utter the final note of criticism. This can only be accomplished when a period has sufficiently detached itself. Four centuries ago saw a Classic Renaissance in art and letters, and we can to-day judge of its character and achievements. When we are enabled to view the Victorian age from a perspective point—its hopes and aims for art—we shall, I think, agree that these also found expression in a re-birth, the re-birth of romanticism. This romantic note was heard in its deepest tones, perhaps, at Oxford, and occasioned that upheaval of feeling that is spoken of as the Oxford Movement. In so far as this was a Church movement—and indirectly affected Church architecture—it assisted to bring to the front such men as Augustus Welby Pugin, George Gilbert Scott, and George Edmund Street. But the springs of this movement lay deeper in art than perhaps in anything else, and found therein a more complete expression. Edward Burne-Jones and William Morris, both young Oxford undergraduates and destined for the Church, left the University without their degrees and devoted themselves, the one to painting and the other to architecture. And outside the walls of the University they met with a more paramount influence still—that of Dante Gabriel Rossetti—and the enthusiasms of young men like themselves, such as Madox Brown and Millais. Through the painters, with places for exhibition at their disposal, the new movement gradually reached the public, who was finally convinced, much against its will and not without a hard struggle. To William Morris, in particular, we architects owe more than I can say. He insisted on the importance of colour in architectural accessories; and his commercial undertakings slowly enabled him to force the fashion, that doorway by which alone society is accessible to new ideas. Meanwhile, Burges, Norman Shaw, and E. W. Godwin were grafting a fresher growth on to architecture. But architecture transforms itself with difficulty. Styles have resistant materials to deal with. They are long growing, and they are 'an unconscionable while a-dying.' They further demand specific needs for their true development, and these needs, while our social conditions are in that rapid fluctuation in which we find them to-day, are superseded before they have had time to arrange themselves in definite form. Further, this renaissance of the Mediæval, of the romantic sentiment, reveals to us our true position—the position we hold as inheritors of both Classic and Mediæval tradition. The claims of Gothic architecture are strong. Nothing can, however, be representative, nothing can be lasting that does not give expression to all preceding influences—a something which combines the refinement of the Classic with the freedom of the Gothic. Such a union is no fancy. Something of the kind was achieved by Tudor architecture; and I venture to think that it is also by the combination of these qualities that the most striking successes in modern design have been realised. If this be a principle, as I hold that it is, then it behoves every architect to cultivate a catholicity of taste. His appreciative powers will be quickened, and he will find his life in all respects both fuller and broader. I may be told that specialism is more remunerative. To have your name intimately connected with some particular and limited want or department is the surest way to be recognised by a public who thinks little and whose memory is bad. But the age is not without signs that specialism and cranks in general have enjoyed their most profitable period, and that it is not so patient of the formalist and the pedant as it used to be. Let me quit the events of a century for those of a year. The Strand Improvement scheme resulted in a competition which called forth some half-dozen very interesting designs. The Report upon these, which Mr. Norman Shaw is to make, has not yet been published. It must be noticed, with regret, that the London County Council sought to engage the services of the competitors upon most unreasonable terms, inasmuch as it would give no guarantee that the successful architect should execute his own design; and it was in every way so cavalier in its dealings with the Royal Institute, whom the Council had itself approached, that the Institute was obliged to decline further co-operation. Another circumstance, calling for our attention, was the fact that the County Council had no clear intention as to what it actually required, and hoped, with Mr. Micawber, that amid the surprises of competition 'something might turn up.' To think that you want to include a municipal building among shops and offices, but are not sure, can lead, one would think, to no very definite competitive result. Another competition, and one of national importance, at present occupies the public interest—the proposed memorial to the late Queen. It appears to be generally regretted that this endeavour has not been put upon broader lines. The least defensible part of it is undoubtedly the placing, whatever sculpture shall be employed, in the hands of a single sculptor. The only apology that may be made by the initiators of the scheme is that they consider sculpture of such minor importance as to render any multiplication of ideas unnecessary. This, I venture to think, will hardly recommend itself to those who realise the part played by sculpture during the best periods of monumental art. Negotiations have for long been carried on between the Royal Institute and the Builders' Association, with a view to a common understanding upon a form of contract that shall be acceptable to both architect and builder. You are, no doubt, aware that these negotiations have been broken off with their object still unfulfilled. The cause of the failure is apparent. Unless the Builders' Association can obtain a form of contract that is distinctly favourable to it, its members know that they are more safely situated in the hands of the architect directing the work, and prefer to leave matters as they are. The negotiations have, however, been successful in producing an exceedingly fair and thorough arbitration clause, between which and one directing that the architect shall be sole arbitrator there is no half-way house . . . ." Mr. Tait was accorded a hearty vote of thanks for his address.—Mr. H. G. Luff was then elected President; Mr. John M. Pinn Vice-President; Mr. Harbottle Reed, Hon. Secretary; Mr. Octavius Ralling, Hon. Treasurer; and Mr. Alton Bazeley, Mr. Charles Cole, and Mr. C. E. Ware members of the Council. Mr. Ralling gave notice that he would move that the Hon. Secretary of the Three Towns branch be *ex officio* member of the Council. Votes of thanks were given to Mr. Tait, Mr. Reed, and Mr. Ralling for their services in the past year.

ARCHITECTURAL ASSOCIATION OF IRELAND.—A general meeting of the members of this Association was held in the Grosvenor Hotel on the 30th ult., the President, Mr. Frederick Batchelor, occupying the chair. Amongst those present were Messrs. J. Rawson Carroll, J. Howard Pentland, W. Kaye Parry (Hon. Sec., Royal Institute of the Architects of Ireland), C. J. MacCarthy, Anthony Scott (Drogheda), F. Shaw (Drogheda), R. M. Butler, T. E. Hudman, G. F. Beckett, J. H. Webb, Fred. G. Hicks, E. Bradbury, &c. This meeting was the concluding meeting for the Session 1900-1901, and the reports of the various classes were read and the results of the several competitions announced. The Class of Design was very satisfactorily attended during the session, and good work is recorded; the prizes in connexion with this class are gained by Mr. W. Connolly (first prize), and Messrs. J. K. Vinycombe and H. J. Leask (tie for second prize). The Hon. Secretary of this class was Mr. G. G. Lynes. The Architectural History Class (Mr. R. M. Butler, Hon. Sec.) was also well attended, and proved a most useful innovation; in this class the progress and changes in architecture were traced by the lecturers, and illustrated by lantern views of typical examples. In the Building Construction Class the first prize is won by Mr. H. J. Lundy and the second by Mr. W. Connolly. Mr. W. H. Ward was secretary to this class. The report of the Design Club is not so encouraging, and it is hoped that in future better attendances will be maintained. Probably the most satisfactory of all reports is that of the Technical Demonstrations Sub-Committee. The necessity for giving architectural students an opportunity of studying practical details, and of discerning between good and bad materials and workmanship, is one which had not been met heretofore, and early in the session steps were taken to inaugurate what turned out to be a most successful series of practical demonstrations, for the arrangement of which are largely responsible the untiring efforts of the President and of the Hon. Secretary of the Sub-Committee, Mr. H. Allberry. The master-craftsmen of Dublin most readily and generously co-operated in the work, personally conducting the members of the Association over their yards and workshops, and explaining, lecturing, and demonstrating upon the different materials and manners and methods of work. The value of these demonstrations was so very evident, that

many gentlemen became members of the Association in order to avail themselves of them. Prizes were offered for the best series of notes taken, and were awarded in order of merit to Messrs. L. O'Callaghan, H. T. O'Rorke, and F. Morley. The members of the Association have reason to be particularly grateful to those contractors and master-craftsmen who so generously assisted in the work. The Librarian, Mr. J. Geoghegan, submitted a satisfactory report. In addition to the valuable library which Sir Thomas Drew has kindly placed at the disposal of the members of the Association, a lending library has been lately started, the volumes in which have been presented by several gentlemen or purchased from a fund which has been opened for the purpose. The A.A. Travelling Studentship of ten guineas was won by Mr. J. A. Rockett, whose measured drawings of St. Patrick's Cathedral were adjudged by Mr. A. E. Murray, A.R.H.A., as the best of those submitted in competition. The Royal Institute of the Architects of Ireland offered a prize of 10*l.* 10s. for a design, to be competed for by members of the Association. The subject set for design was "A Technical School," and seven members submitted drawings, under motto, which were kindly assessed by Mr. W. H. Lynn, R.H.A. (Belfast).—Mr. W. Kaye Parry read the assessor's award, which placed first the design submitted under motto "Cui Bono," and upon the President opening the envelope bearing that motto it was announced that the successful competitor was Mr. C. P. Powell. Mr. W. F. Beckett's prize of 2*l.* 2s. for the best sketch of the campanile in Trinity College is won by Mr. L. O'Callaghan.—The result of the ballot for the officers for the ensuing session (1901-1902) was announced as follows: President, Mr. C. J. McCarthy; Vice-Presidents, Mr. T. E. Hudman and Mr. E. P. Sheridan; Committee, Messrs. H. Allberry, F. Batchelor, R. M. Butler, T. Coleman, F. G. Hicks, J. Holloway, C. H. Mitchell, L. O'Callaghan, R. C. Orpen; Hon. Treasurer, Mr. J. H. Webb; Hon. Librarian, Mr. J. Geoghegan; Hon. Secretaries, Messrs. E. Bradbury and G. F. Beckett; Hon. Auditors, Messrs. M. J. Buckley and J. P. McGrath. The retiring President (Mr. Frederick Batchelor) delivered a short valedictory address, in which he reviewed the work of the Association during the past session, and expressed hopes for the future. He referred to the series of day classes recently inaugurated by the London Architectural Association, and trusted that something of a similar nature, though on different lines, might be started in connexion with this Association. Mr. Kaye Parry proposed a hearty vote of thanks to the retiring President for his valuable services during his term of office, which was seconded by Mr. C. J. McCarthy and carried with applause. A vote of thanks to the retiring hon. secretary, Mr. F. G. Hicks, was proposed and seconded by Mr. H. Allberry and Mr. R. M. Butler respectively, who, as past secretaries, were able to appreciate the arduous nature of his duties. The vote was carried with acclamation, as was also one to Mr. J. H. Webb, Hon. Treasurer, proposed by Mr. T. E. Hudman and seconded by Mr. E. Bradbury. Mr. J. Rawson Carroll having congratulated the Association upon the work done during the past sessions, the meeting terminated.

ENGINEERING SOCIETIES.

SOCIETY OF ENGINEERS.—At a meeting of the Society of Engineers held at the Royal United Service Institution, Whitehall, on the 3rd inst., Mr. Charles Mason, President, in the chair, a paper was read on "Concrete Subways for Underground Pipes," by Mr. Arthur Taylor Allen. In introducing the subject the author referred to the construction of the first subway in England for underground pipes, which took place about the year 1860, in the city of London. This was followed a year or two later by one in the city of Nottingham. He noted the lack of progress there had been in the extension of these new arterial thoroughfares, for, beyond one being constructed at St. Helens in 1898, very little had been done in that direction to minimise the evil resulting from the continuous breaking up of roadways for access to the numerous pipes laid under every thoroughfare. He gave a long list of streets broken up in the course of one year for obtaining access to pipes. He also pointed out the danger and inconvenience likely to arise from roadways being laid over a number of gas-pipes, which might soon prove to be of insufficient capacity or become defective, and over water-mains that were laid years ago when the water supply was very limited. The author referred to the sections of the various Acts in force empowering public companies to break up streets after due notice, causing the total or partial blocking of a thoroughfare, interfering with traffic, and operating temporarily to the prejudice of business-houses, the owners having no claim for any loss sustained thereby. He then alluded to the increasing number of underground pipes, and the possibility of the provisions of the Rivers Pollution Acts being more rigidly enforced, and in the near future throwing upon some authorities the necessity of separate sewers for surface or storm water. The author then described the subways in London, Nottingham, and St. Helens. To relieve doubt as to the possibility of a severe frost affecting the water-mains in the subways he gave satisfactory thermometrical readings taken in the Albert-street subway, Nottingham. Turning next to the utility of subways, the author stated that by their construction access could be readily obtained for the purpose of inspection, alteration, or addition to any of the pipes at present hidden and placed beyond inspection. He drew attention to the fact that after works of great magnitude had been undertaken in obtaining a pure water supply to ensure the health and safety of the population, the pipes conveying the supply were hidden. Thus, a defective joint or a burst might remain undiscovered for a length of time, as was the case some years ago, when the first intimation of a leakage in the borough water-mains was reported to him by the sewer men when repairing a sewer in close proximity to the mains. An efficient system of detection and prevention of water pollution or waste would be provided for by subways, and the life of iron pipes would be considerably increased. Electric and telegraph wires need no longer run along poles and roof fixtures; they could be put underground, thus rendering them less dangerous and more reliable and permanent. Having regard to economy of cost, capability of resistance, and rapidity of execution, the author suggested concrete as the most suitable material for such works, and referred to its practical value as exemplified by its extensive use in connexion with works in general. In dealing with subways for large cities and busy thoroughfares where foot passengers experienced difficulty in crossing the street in safety, the author recommended that, in conjunction with the subway, underground conveniences should form a part of the scheme. Entrances would be erected in the centre of the street, so arranged that an easy and ready access (although private) could be gained from the first landing. This might be regarded as a peculiar suggestion, but he alluded to the revenue it was possible for it to bring in, as much as from 200*l.* to 2,000*l.* per annum having been cleared as profit for such accommodation. With regard to subways for suburban districts, the author considered all large subways should have lateral ways, about 3 ft. wide by 4 ft. 6 in. high, for the purpose of access and conveyance of gas, water, and other pipes, and he advocated making use of every available space by a specially-designed iron bracket for the pipes. The author submitted a proposal for a subway under each footpath of all new streets to receive the water, gas, and other pipes, the subways to form part of the laying-out of the new street. He considered it necessary that the gas and water mains should be in duplicate; the concrete wall nearest the house would be perforated with 2-in. and 2½-in. holes for the house services, thus obviating the construction and expense of lateral ways. The sewer would be laid under the road with the usual manholes on the principle adopted in the present day, but with the addition of elongated eyes every 20 ft., extending to each subway, the chamber (common to all house drainage) to be constructed in the bottom of the subway by and at the cost of the owner when requiring to connect with the sewer. This method he contended would ensure the surface of the road being kept free from interference. The author gave the cost of some subways constructed in London as 15*l.* per lineal yard, Nottingham 10*l.* per lineal yard, and St. Helens 7*l.* 2s. 4d. per lineal yard. He pointed out, however, that the information was of but little practical value and must be accepted with the greatest caution, it being impossible to make a useful comparison between the cost of construction at other places without a knowledge of the conditions of each case. Although the initial cost would prove heavy, he pointed out that there might be some compensation if the excavated materials proved suitable for the concrete work. The author considered that the cost of constructing subways should be borne by a loan for a period of fifty years, as the works come under the category of permanent works.

METROPOLITAN ASYLUMS BOARD.

THE fortnightly meeting of this Board was held at the offices, Victoria Embankment, on Saturday, Mr. Hensley presiding.

The Works Committee, reporting upon the proposal to erect an isolation hospital at the Darenth Asylum, recommended that Messrs. Newman & Newman be appointed architects, and the Board concurred.

The same Committee, reporting with regard to the South Wharf, Rotherhithe, recommended that the tender of Messrs. Veale & Carter, in 5,620*l.*, for the erection of a medical officer's residence and male staff quarters be accepted. The recommendation was adopted. The other tenders were from Messrs. Lawrence & Son, Waltham Cross, 5,949*l.*; Jno. Appleby, Stamford-street, 6,032*l.*; F. & H. Higgs, Loughborough Junction, 6,331*l.*; W. Irwin, Essex-road, N., 6,452*l.*; B. E. Nightingale, Albert Works, S.E., 6,475*l.*; Balaam Bros., Shenton-street, S.E., 6,556*l.*; H. L. Holloway, Deptford, 6,560*l.*; Walter Wallis, Balham, 6,732*l.*; W. Pattinson & Son, Parliament-street, 6,784*l.*; Thomas Edge, Woolwich, 6,850*l.*; T. G. Sharpington, Nunhead, 6,890*l.*; Lole & Lightfoot, Chelsea, 6,897*l.*; G. Godson & Sons, Kilburn-lane, 7,390*l.*; and A. White & Co., Rotherhithe, 7,450*l.*

THE LONDON BUILDING ACT, 1894.

TRIBUNAL OF APPEAL CASE.

ON taking the chair at the Tribunal of Appeal under the London Building Act, on Tuesday, Mr. J. W. Penfold, the new Chairman, referred to the death of Mr. Arthur Cates, who was for some years Chairman of the Tribunal. He said he was sure that every one who had been in the habit of practising before the Tribunal would join with him in expressing deep regret at the loss of Mr. Cates. Though this was not the occasion for alluding to personal friendship, he could not help saying, speaking for himself, that it spoke much for the attractive personality of a man whom, after passing the commonly allotted term of life, one greeted with the same cordiality and esteem as when one first took his hand on entering the business of life at twenty-one or twenty-two. The late Mr. Cates' genial presence and unfailing tact and courtesy very efficiently and pleasantly controlled their proceedings. His orderly and business-like habits, his conspicuous impartiality and his firm persuasiveness when he thought the justice of the case might be met by a friendly compromise were doubtless of great advantage to those who submitted their differences to the judgment of the Tribunal, while his unique acquaintance with the details of the Building Act and his quick perception of the essential points in a case were of great value to his colleagues. As to the future, he (Mr. Penfold) said he had no doubt that the Tribunal, as now constituted, could rely on a continuance of that assistance from the representatives of both appellants and respondent which had conduced so much to the order and regularity of their proceedings.

Mr. Andrews (of the London County Council solicitors' department), speaking on behalf of those who practised before the Tribunal, endorsed the chairman's remarks, adding that he believed the traditions of the past would be fully maintained by the Tribunal as newly constituted.

The Tribunal, consisting of Messrs. Penfold, A. H. Hudson, and E. A. Gruning, then heard an appeal which stood adjourned from the 17th ult. in consequence of the death of Mr. Cates.

The appeal was that in which Mr. H. A. Woodington, on behalf of Mr. B. H. Lynch, sought to reverse the decision of the London County Council not to sanction certain deviations from the plans certified by the District Surveyor, under Section 43 of the Act, so far as relates to the proposed rebuilding of 19 and 20, Bateman-street, Soho, as shown upon the plans submitted by Mr. H. A. Woodington, on behalf of Mr. Lynch.

The case for the appellant was conducted by Mr. Woodington, while the London County Council and Superintending Architect were represented by Mr. Andrews, solicitor.

Mr. Woodington explained that on June 29, 1900, he sent to the District Surveyor drawings, which were certified by him. On September 20 he sent to the London County Council plans showing deviations, and a month later he received an intimation

that the Council refused to sanction the deviations proposed. He inquired by letter upon what grounds this refusal was made, but the Superintending Architect wrote back that he was not authorised to add anything to his previous letter, which merely stated that the Council refused to sanction the plans. He duly gave notice of appeal, but he was still unaware of the grounds of the Council's action, and he was at a loss to know how to go on.

Mr. Andrews said he was quite willing, with the view to expediting matters, to make any admission that might be consistent with his duty, but he thought he ought to point out that it was for the appellant to show that the Council had no good grounds for refusing to sanction the plans.

Mr. Woodington said they were proceeding under Section 43, Sub-Section 1.

The Chairman suggested that the appellant might proceed by showing what he regarded as the advantages of his proposals.

Mr. Woodington proceeded to remark that he knew that Section 4 stipulated that there should be an open space in the rear of such a building at least 10 ft. deep, but he proposed to divert this space into the area for light—which would be more than an equivalent of the space suggested under the Act. He contended that the Council should have approved of the plans because the arrangement was a reasonable one.

Mr. Andrews cross-examined Mr. Woodington on the details of the plans, and on the admissions he made, together with the facts gained by the Tribunal on a personal inspection, the Chairman intimated that, without troubling to enter upon the respondents case, they considered the appeal should be dismissed. Without calling upon Mr. Andrews, therefore, they dismissed the appeal, with ten guineas costs.

BOOKS RECEIVED.

TUNNELLING: A PRACTICAL TREATISE. By Charles Prelini, C.E., and Charles S. Hill, C.E. (Crosby Lockwood & Son. 16s.)

LAND AREA TABLES. Compiled by William Codd. (E. & F. N. Spon).

AN ITINERARY OF THE ENGLISH CATHEDRALS. By the Rev. T. Perkins. (Geo. Bell & Son.)

DER SCHORNSTEINBAU. By Gustav Lang. (Helwingsche Verlagsbuchhandlung, Hanover.)

PROCEEDINGS OF AMERICAN SOCIETY OF CIVIL ENGINEERS. Vol. XXVII.: No 5.

Correspondence.

To the Editor of THE BUILDER.

HOLIDAYS FOR THE POOR.

SIR,—There are few people who work harder, and who deserve and enjoy their holidays more, than your readers, and it is on a question of holidays that I wish, with your permission, to appeal to them. There are thousands of children in the London slums who have never seen the sea, and have never played in a green field. Poverty keeps them tied to their close and unhealthy courts and alleys. The Ragged School Union is "opening up the country" to these children by means of their seaside holiday homes, and each year it provides a fortnight's holiday for some thousands of them. The cost of such a holiday is only 10s. per child—a comparatively small amount in the expenses of the average holiday-maker. Last year we sent over 6,200 children for a holiday; this year we hope to increase the number. Will your readers help us? I shall be happy to receive and acknowledge all subscriptions sent to me.

JOHN KIRK.

Ragged School Union and Shaftesbury Society, 32, John-street, Bedford-row, W.C.

DAMP BRICK WALLS.

SIR,—Would any of your readers kindly reply, giving a good remedy for dampness of brick walls, to be applied in solution on the outside of bricks that absorb the rain water, which goes through into the house? A SUFFERER.

CHURCH, TOLLCROSS, LANARKSHIRE.—St. Margaret's Established Church, Tollcross, which has just been completed, was dedicated on the 31st ult. The church is built on a site south of the railway at Tollcross Station, fronting Braidfauld-road. The style is Late Gothic. The building will afford accommodation for 322 persons. Ground is also reserved on the north side for nearly doubling this accommodation, and on the east for building a small hall and session-house. The plan consists of a nave with aisle and a chancel or choir raised one step above the floor of the nave. The main entrance is by a porch at the south-west corner, which communicates with nave and aisle. The pulpit is on the north side of the nave, and is of stone. The architect was Mr. W. G. Rowan, Glasgow. The church is intended to cost about 2,300*l*.

The Student's Column.

SANITARY FITTINGS AND PLUMBING.

21.—THE UNSEALING OF TRAPS.

UNDER certain conditions, trap-ventilation is absolutely necessary in order to prevent the seal of the traps being destroyed by the ordinary use of the fittings, but ventilation is of no use in preventing loss of seal in what may be termed extraordinary cases. If a fitting is not used for a long time, the water in the trap may evaporate, and this evaporation will be hastened by the current of air induced by the trap-ventilating pipe. Again, the contents of a trap may be partially or wholly drained away by a piece of rag lying with one end in the trap and the other in the waste-pipe. Evaporation cannot, of course, be prevented, but it can, to some extent, be checked by keeping the plug in the washer in the case of fittings where plug-wastes are adopted, and by closing the lids of water-closets, but this destroys the polish and ultimately injures the wood. The retention of pieces of rag in the outlets of traps may be guarded against by having the traps of self-cleansing shape and adequately flushed. The standing water in a trap may also be lowered by strong winds blowing across or down the open end of the ventilating pipe. The most common causes of loss of seal are, however, siphonage and momentum. Strictly speaking, of course, the term "siphonage" ought to be confined to those cases in which the contents of the trap are drawn out below the level of the outlet by siphonic action, and "momentum" to those in which the contents are carried over the outlet by the momentum of the water entering the trap. A round-pipe trap fixed under a valve closet is very liable to unsealing, and in this case the unsealing is largely due to the momentum gained by the water in falling from the valve to the level of the trap. It is obvious that the momentum is not reduced by ventilating the trap. It is equally obvious that a large body of standing water in a trap checks the force of the flush and at once reduces its momentum. If the standing water falls below a certain level it does not offer sufficient resistance, and the trap may be unsealed by momentum. Water-closet traps, which are quite safe under ordinary circumstances, may be unsealed by pouring into them a number of pailfuls of water or slops. The momentum of the first pailful will be considerably reduced by the normal quantity of standing water, with the result that this may be only slightly lowered. The second pailful, meeting with slightly less resistance, will lower the level of the standing water to a still greater extent, and so on until the trap is unsealed. In a wash-down closet with P trap and 1½-in. seal, tested by the writer, the second pailful unsealed the trap. This cumulative effect of successive discharges must be borne in mind in examining water-closets which are also used as slop-hoppers. The effect of a pailful of water rapidly emptied into the basin is much more severe than that of the normal flush discharged through a pipe only 1¼ in. or 1½ in. in diameter.

Although the momentum of the falling water undoubtedly plays a considerable part in lowering the standing water in traps, thorough unsealing is seldom effected unless siphonic action is brought into play, and it is practically impossible to distinguish in every case between the two causes of failure. To avoid unnecessary verbiage, the term "siphonage" will be employed whether the unsealing is due to siphonic action or momentum, or to both.

It cannot be said that a complete series of tests, sufficient to demonstrate the advantages and disadvantages of different forms of traps, has yet been carried out. Tests carried out by the makers of a special trap will naturally be regarded as less authoritative than those carried out by independent witnesses. A committee of the Sanitary Institute* has recently experimented with two forms of water-closet traps—the round-pipe "Dubois" P trap, and the "Anti-D" trap—and as far as these traps are concerned, the tests are fairly complete, and are of sufficient value to merit detailed notice. The apparatus (fig. 1) consisted of a 3½-in. lead soil-pipe 30 ft. 8 in. high, with 3½-in. branches to two short-hopper closets with circular outlets, the upper outlet being 3¼ in. and the lower 3½ in. in diameter. The two closets were placed on the ground floor and first floor respectively, and in each experiment both closets were fitted with similar traps. The Dubois ordinary traps were 3½ in. in diameter, with 1⅞-in. seal, and contained 60 ozs. of water. The Dubois deep-seal traps were of the same diameter, but with a seal of 2⅜ in. on the lower basin and 2¾ in. on the upper basin, the traps containing 60 ozs. and 64 ozs. of water respectively. The Anti-D traps were also 3½ in. in diameter, with seals of 1⅞ in. on the lower basin and 2 in. on the upper basin, and each contained 40 ozs. of water. The water was emptied into the basins from a pail, six experiments being made in each case. This is, of course, a severer test than would have been obtained by the use of a flushing cistern. Valves were fitted in the anti-siphonage pipes and soil-pipe, as shown in the illustration, so that these could be closed as required for different experiments.

When the soil-pipe and anti-siphonage pipes were open the discharges had practically no effect on the traps, but when these pipes were closed all the traps on the upper basins were unsealed by the discharges through the same basins, while discharges through the lower basins lowered the water in the traps of these basins but did not unseal them. The *mean* results are shown graphically in fig. 2 by the thick horizontal lines, and the *maximum* results by the black dots. The normal depth of seal is represented by the vertical dotted lines, and the loss of seal by the vertical full lines; the cross-hatching represents the depth below the dip to which the water was lowered in those cases where the traps were quite unsealed. In the tests marked A the anti-siphonage pipes and soil-pipe were open, in those marked B the anti-siphonage pipes were closed and the soil-pipe open, in those marked C the anti-siphonage pipes were open and the soil-pipe closed, and in those marked D the three pipes were closed.

It will be observed that, with the exception of a single test, the traps attached to the upper closets were the only ones unsealed, and that the unsealing occurred only when the water was poured into the upper basins. The sole exception was in the case of the Anti-D trap, the maximum siphonage (with a three-gallon flush in the upper basin) lowering the water of the lower trap exactly to the bottom of the dip when all the pipes were closed.

The tests were not sufficiently complete to allow a final comparison to be made between the two traps, but as far as they go, they show that neither trap can claim superiority under every condition. When the anti-siphonage pipes and soil-pipe were open both traps retained practically the full depth of seal in every case. When the anti-siphonage pipes were closed and the soil-pipe open there was little difference between the traps under the following conditions—(1) when fitted to the lower basin and tested by discharges through either the lower or upper basin, and (2) when fitted to the upper basin and tested by discharges through the lower basin; but when fitted to the upper basin and tested by discharges through the same basin the Anti-D trap had a decided advantage, the seal remaining practically intact, while the Dubois trap was unsealed time after time. When the anti-siphonage pipes were open and the soil-pipe closed both traps were satisfactory and gave almost identical results. With the anti-siphonage pipes and soil-pipe closed, both traps, when fitted to the upper basin and tested by discharges through the same basin, were unsealed; when the traps were fitted to one basin and tested by discharges through the other basin the Dubois trap gave uniformly better results than the Anti-D trap; but when the traps were fitted to the lower basin and tested by discharges through the same basin the Anti-D trap was decidedly superior.

It would have been more satisfactory if additional tests of the upper traps had been made with the branches from the lower traps closed, and *vice versa*, and also if a complete series of tests had been made with the air-grating at the foot of the soil-pipe closed. The foot-ventilation of the soil-pipe is a feature not often adopted in current practice, and renders the tests less useful than they would otherwise have been.

The tests illustrated in fig. 2 refer to the Dubois trap with ordinary seal. The deep-seal trap fitted to the upper basin and tested

* See the "Journal" of the Sanitary Institute, April, 1901.

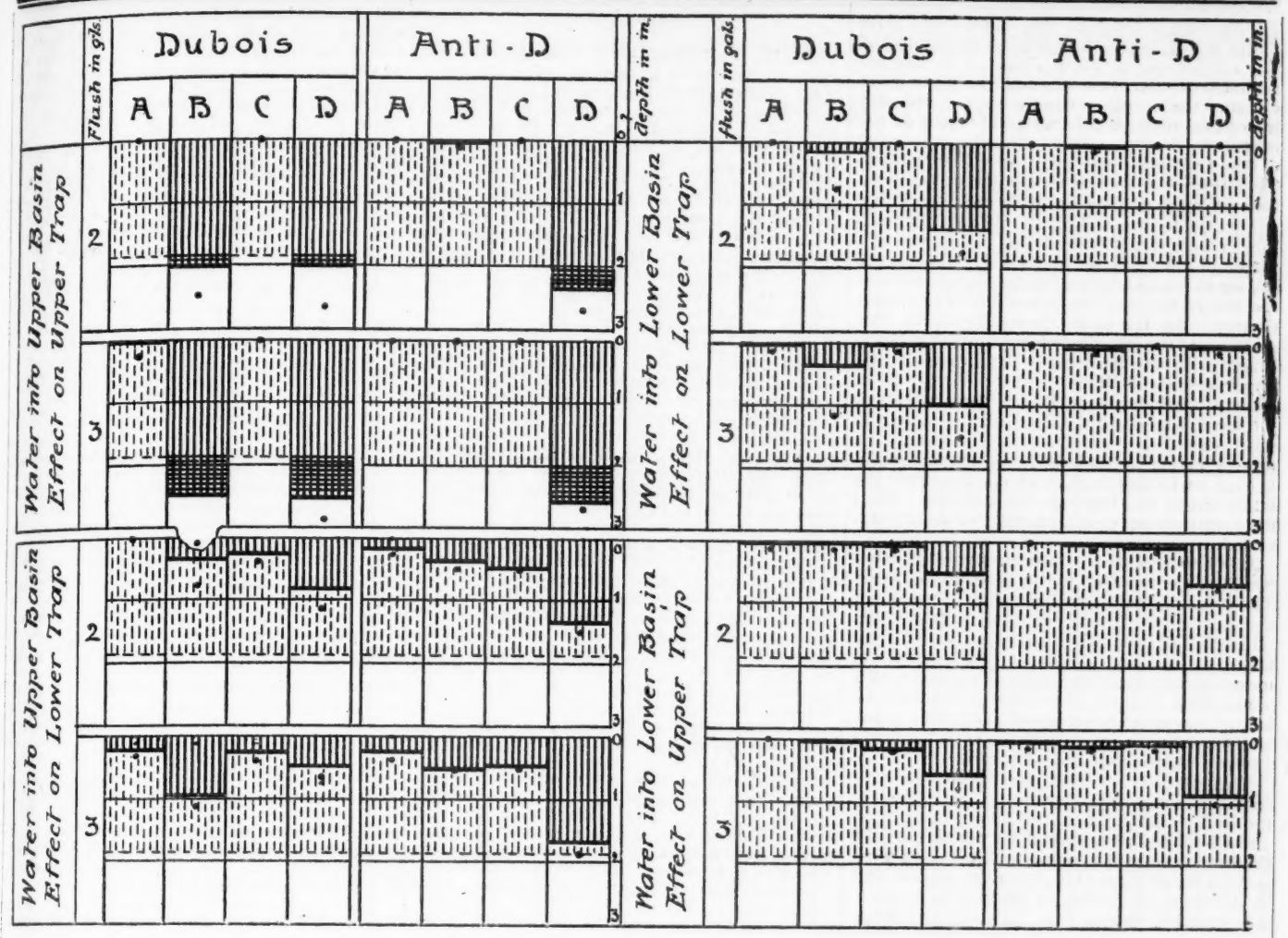


Fig. 1.

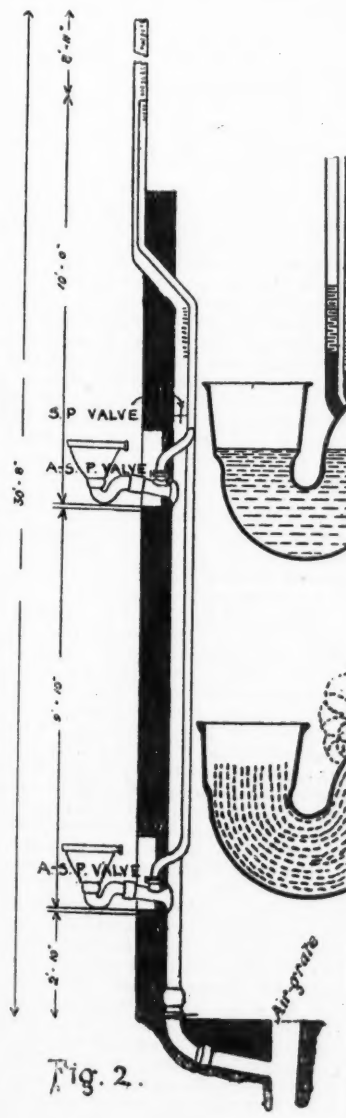


Fig. 2.

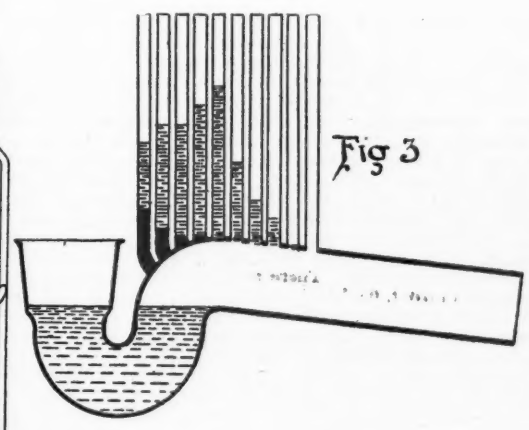


Fig 3

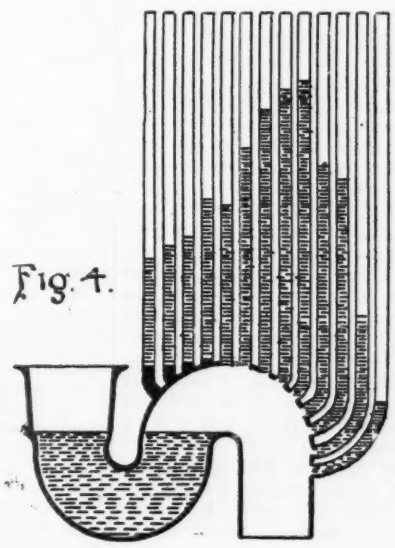


Fig. 4.

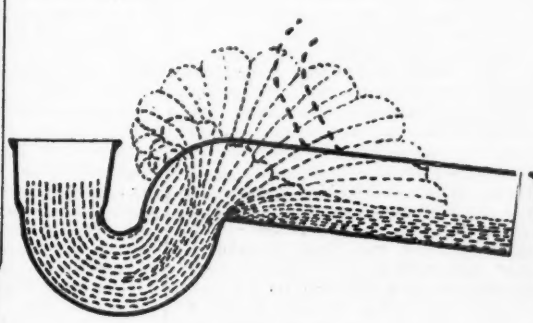


Fig. 5.

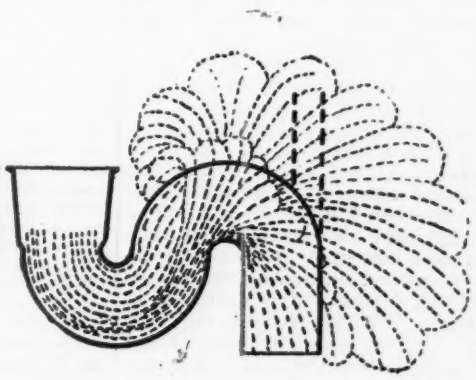


Fig. 6.

Illustrations to Student's Column.

by discharges through the same basin gave better results when the soil-pipe was open and the anti-siphonage pipes closed, but was unsealed time after time when all the pipes were closed. Under other conditions, the ordinary trap gave, on the whole, as good results as the other.

Many old soil-pipes are trapped at the foot. This trap is a source of danger, especially if two or more closets on different floors are connected to the soil-pipe. When the uppermost closet is discharged the water acts as a piston in the soil-pipe, and must expel part of the air in the soil-pipe either through the trap at the foot or through the trap of one of the lower closets. As the latter generally offers less resistance, the air (fouled by the soil-pipe) is driven into the building. The force of the upper discharge is sometimes so great as to eject a considerable portion of the contents of the lower trap on to the floor of the room; in other cases, the water in the trap may be merely raised in the basin, but the momentum gained in falling back will carry part of the water out of the trap into the soil-pipe. Thus the trap may be either partially or wholly unsealed.

It is unnecessary to describe in detail other conditions which lead to the unsealing of traps. The principal points to be borne in mind are the necessity of trap ventilation (especially when the waste-pipes or soil-pipes are of great length or receive the discharges from two or more fittings), the importance of continuing the waste-pipes and soil-pipes (but particularly the latter) upwards to serve as ventilation pipes, and the danger arising from trapping the lower parts of waste-pipes and soil-pipes.

The position of the anti-siphonage pipe requires some consideration. According to the by-laws of the London County Council, an anti-siphonage pipe should be connected with the branch pipe at a point not less than 3 in., and not more than 12 in. from the highest part of the trap—of course, on the soil-pipe side of the standing water. If the anti-siphonage pipe is connected too near the highest part of the trap, the end will be fouled, and perhaps ultimately "furred up," by the discharges from the fitting rising into the pipe; if it is connected to the branch pipe at too great a distance from the trap, it will be of little use in preventing siphonage. The Committee of the Sanitary Institute already referred to carried out other experiments with the view of determining the best position for the anti-siphonage pipe. Dubois traps of P and S shape, and $3\frac{1}{2}$ in. and 4 in. in diameter, were tested by fitting them to a short-hopper closet with $3\frac{1}{2}$-in. circular outlet, and by flushing the closet (1) with 2 gallons of water "thrown into the basin from a pail" and (2) with discharges from a 2-gallon siphon cistern fixed 4 ft. 9 in. above the top of the basin, and connected to it with a $1\frac{1}{4}$-in. lead flush-pipe. Glass tubes were fitted to the traps in various positions, so that the height to which the water rose could be observed. "Only one tube was fitted at a time, the other openings being carefully closed." Figs. 3 and 4 show the results obtained with $3\frac{1}{2}$-in. traps, the P-trap having a seal of $2\frac{1}{8}$ in. and the S-trap a seal of 2 in. The shaded portions represent the maximum heights (out of six tests in each case) to which the water rose in the tubes, when the flush was thrown from a pail, and the black portions give the maximum results obtained when the closet was flushed from the cistern. These tests show that, for a closet used as a slop-hopper, the crown of the trap is not a suitable position for the anti-siphonage pipe. The further tests, illustrated diagrammatically in figs. 5 and 6, were made by cutting a slit $1\frac{1}{2}$ in. wide along the top of each trap, and observing the extent of the splashing. The light lines show the results when the closets were flushed from a pail, and the dark lines those obtained when the cistern was used. It is clear from these illustrations that the anti-siphonage pipe will be seriously fouled if it is connected at right angles to any line tangential to the curve of the trap. The thick dotted lines in figs. 5 and 6 show how the anti-siphonage pipes may be connected so that the risk of fouling is minimised.

In concluding this account of the Committee's experiments, it ought to be stated that the bare facts only are recorded in the "Journal" of the Sanitary Institute, and the Committee cannot therefore be held responsible for the deductions which the writer has drawn from these facts.

OBITUARY.

MR. W. J. HOPKINS.—We have to record the death, on the 28th ult. at Sansome Lodge, Worcester, of Mr. William Jeffrey Hopkins, aged eighty, Fellow of the Institute of British Architects, and Diocesan Architect of Worcester. In our issue of November 19, 1898, we recorded the restoration of the ancient wayside cross at Eckington, Worcester, after the design of Mr. Hopkins; the base and a portion of the shaft alone remained, and he renewed the upper portion and added a cross as a finial. He was architect of Hallow Church near Worcester, commenced in 1879, which he completed by the addition of a spire in 1900.

MR G. E. WALLIS.—Alderman G. E. Wallis, builder and contractor, died on Friday morning, the 31st ult., at his residence, "Elverton," Boxley-road, Maidstone. Mr. Wallis was born at Boxley on August 6, 1823, and came to Maidstone when a boy, starting life as a journeyman plasterer and bricklayer, and when only nineteen years of age entered into matrimony, his wife being the daughter of his then employer, Mr. William Bow, who was the originator of the artificial stone manufacture. Eventually Mr. Wallis succeeded to the business, and in 1860, in partnership with the late Mr. Jas. Clements, started as building contractor, and in the course of nearly thirty years, during which the partnership existed, carried out many important works, including additions to Barming Asylum, and Kingsnorth Industrial Schools, and other works for the county of Kent, mansion at Boxley for Major Best, St. Faith's and St. Phillip's Churches, Maidstone, and schools for most of the parishes of Maidstone and vicinity, Fremlin's Brewery, &c. In 1889 the partnership was dissolved, and in conjunction with his three sons the firm of G. E. Wallis & Sons was formed, and a larger sphere of operations entered into, comprising large War-office contracts at Shorncliffe, Aldershot, Lydd, &c., work for the London School Board, &c. The deceased took an active part in municipal affairs, having been a member of the Town Council for the last twenty-five years, also a Guardian of the Poor and a Governor of the Grammar School, and warden of his parish church. He was also a prominent member of the Masonic fraternity, being P.M. of the Belvidere (503) Lodge and P.Z. of the Belvedere Chapter, holding the office of Treasurer at the time of his death. He was also an enthusiastic musical amateur, and performed on the violoncello with quite exceptional ability, his knowledge of the instrument being entirely self-acquired, and his devotion to it remained to the last, he having formed one of a quartette party only the night before his decease.

GENERAL BUILDING NEWS.

PRESBYTERIAN CHURCH, MUSWELL HILL, N.—The design submitted for this church in a recent competition (limited to five architects), under motto "New Era," has been adopted, and the authors of the design, Messrs. George Baines & Reginald Palmer Baines, Clement's-inn, Strand, W.C., have been instructed to proceed with working drawings. The style adopted is a free treatment of the Perpendicular period of Gothic architecture. Externally the building is to be faced with whole white flints, the dressings being of red Costessey work. A square tower, terminating in a spirelet, forms a prominent feature at the angle of the block, the site being at the corner of two roads. There are three moulded doorways in front, flanked by buttresses; a seven-light traceried window is in the central gable, and traceried work in the apex of gable. The plan approximates in form to a Greek cross. The ceilings internally will be vaulted in wood, the large central vault being carried up higher than others for effect and better ventilation, and being carried upon clustered green marble columns, with moulded stone bases and carved stone capitals. These support four main moulded arches, and other smaller ones spanning to the walls. The windows will all be filled with ornamental lead lights. Electric lighting is arranged for, and low-pressure hot-water heating apparatus will be provided. Seating accommodation will be: on ground floor, 750; in front gallery, 100; total, 850, or a mixed congregation of about 1,000 persons.

CHURCH OF ST. JAMES, MUSWELL HILL, N.—The first portion of this church, consecrated on May 25 by the Bishop of London, consists of the chancel and morning chapel, and two bays of nave and aisles, together with vestries and organ transept. When completed the nave will be 96 ft. by 30 ft., inside dimensions, and aisles of same length by 13 ft. wide. The chancel is 40 ft. by 28 ft., and morning chapel 40 ft. by 15 ft. 3 in. The choir and clergy vestries are divided by a movable screen, and will form a parish hall when the screen is folded back. The style of the church is Perpendicular Gothic, which admits of large windows and very ample lighting, and this has been fully availed of in this case, in view of possible gifts of stained glass and the reduction of light which would inevitably follow from its use. The walls are faced inside with sawn Ancaster stone, and similar stone, roughly faced, is used for the outside casing of walls. The moulded pillars, arches, and traceried windows, doorways, &c., are of selected Bath stone, twice coated with fluate of magnesia, to prevent risk of decay. The roofs are all open-timbered, of pitch-pine, those to nave and chancel and chapel being of circular barrel-shape, and panelled by means of principals and ribs. The floors in chancel and passages are paved with marble mosaic, those under seats with maple wood blocks. Canadian oak seats and clergy and choir stalls are provided. Sittings for 950 persons will be provided in the completed church; the present seating is for about 500. The cost of the present portion of the church is about 6,500*l*. The complete church, exclusive of the upper part of the tower and spire, will cost about 13,000*l*., and it is intended to proceed with the erection of the remaining portion of the nave and aisles, and the lower part of the tower, as soon as the original old Chapel-of-Ease has been removed. The architect is Mr. J. S. Alder, of Arundel-street, Strand, W.C. The builder is Mr. John Bentley, of Waltham Abbey.

WESLEYAN CHAPEL, BIRKENSHAW.—A new Wesleyan chapel is in course of erection at Westgate-hill, Birkenshaw, on a site close to the old chapel. It is proposed to spend 4,000*l*. in erecting and completing the new chapel, in addition to which amount 2,000*l*. is required to convert the old chapel into a schoolroom and to build a caretaker's house. From one of the front corners of the building will rise an ornamental spire to a height of 100 ft. The chapel will comprise nave, chancel, and transepts. The two front entrances will communicate with a central vestibule, which will be covered by a small end gallery sufficient to accommodate ninety persons, and the body of the chapel will provide sittings for 454 persons. The ceiling of the nave and transepts will be trefoil in form, and all the windows will have stone tracery heads and will be filled in with leaded lights. The heating will be by means of hot-water pipes on the low-pressure system. Messrs. Walker & Collinson, Bradford and Morecambe, are the architects, and the work is being carried out by the following firms:—Messrs. John Brown & Sons, Bingley, masons; Messrs. H. & T. Riddiough, Cross Hills, joiners; Messrs. G. & R. Minus, Rawdon, plumbers; Messrs. Charles Howroyd & Son, Bradford, plasterers; Mr. T. Thornton, Shipley, slater; and Mr. T. Batty, Drighlington, painter.

RESTORATION OF ST. PETER'S CHURCH, RINGLAND, NORFOLK.—At St. Peter's Church, Ringland, on the 4th inst., a special service was held to mark the completion of the restoration of the church. The church has just received a new oak pulpit, surmounted on a moulded stone base; the chancel fittings include the ancient poppy-headed bench ends, worked as ends to new choir seats; the old deal communion rail with balustrading has been replaced with a well-designed oak rail on circular columnettes and cusped tracery spandrels. The work has been designed by Mr. Arthur J. Chambers, architect, of Norwich, and carried out by Mr. Robert Wegg, builder, Norwich.

NEW WING, STAVELEY GRAMMAR SCHOOL, DERBYSHIRE.—A new wing has been added to Staveley Grammar School. It contains manual instruction-room, lecture theatre, cookery-room, physical and chemical laboratories, and balance-rooms. On the main staircase of the new building have been placed the several coats of arms of the respective founders of the institution. The building was designed by Mr. W. Cecil Jackson, architect, Chesterfield, and Mr. Wm. Forrest, of Chesterfield, has had the contract for erection.

NEW BOARD SCHOOL, ABERDEEN.—On Monday there was opened at Mile-end, Stocket, the new public school just finished for Aberdeen School Board. The building is of granite, and is three stories in height, occupying a site in line with Queen's Cross and Fountain-hall-road. The walls of the two lower floors are of hammer-blocked ashlar, and the upper part of the building of picked ashlar. In the basement are a Cornish steam-boiler and a large air-propeller driven by a Tangye gas-engine, and all the arrangements for mechanical ventilation and heating of the entire building have been taken charge of by Mr. J. Ogg Allan, architect for the School Board. The total cost of the building, the architect of which is Mr. A. H. L. Mackinnon, Aberdeen, will be about 12,000*l*. The school will accommodate 1,239 pupils, and the contractors have been:—Masonry work, Jas. Gauld; carpentry work, A. Hall; slating work, Adam & Co.; plastering work, Stephen & Gibb; plumbing work, J. F. Adams; painting work, J. Mason & Son; heating work, R. Tindall; desks and furnishings, J. Garvie & Sons; electric lighting, Shirras, Laing, & Co., Limited; tar macadam, J. McAdam & Co.; all of Aberdeen.

CHAPEL, COWLEY POOR LAW SCHOOLS, OXFORD.—The new chapel which has recently been erected at the Cowley Poor Law School has just been dedicated. The chapel, the designs for which were executed by Mr. W. H. Castle, the City Estate Surveyor, is situated on the south-west side of the school, and is 43 ft. by 22 ft. The accommodation provided is for 175 children, the construction of the chapel being such that, if necessary at a future date, the building may be enlarged by the addition of a chancel. The main entrance is on the west side, but when the weather will not permit of the children walking in procession, a corridor connecting the school and the chapel will be available. The building is erected with local

stone, similar to that used for the school, the dressings being of Bath stone. The work has been carried out by Messrs. T. H. Kingerlee & Son.

COUNCIL CHAMBER, WHITLEY.—A block of new buildings has just been completed for the Whitley and Monkseaton Urban District Council. The walls of the building are faced with deep red pressed bricks, the dressings being of stone. Upon entering the entrance hall the offices of the clerk and the rate collector are found on the right hand, and those of the surveyor and the sanitary inspector on the left. At the back is a living-room and a kitchen, with scullery and other accommodation, for the caretaker. On the upper floor is the Council chamber, 30 ft. long by 18 ft. 6 in. wide, and 15 ft. high. Behind the Council chamber is a waiting-room, with lavatory and other accommodation. These rooms take up the space on one side of the staircase, and on the other side are two committee-rooms. Connected with the Council chamber is a cloakroom. Above these rooms there are three attic bedrooms for the caretaker. These constitute the main block; but there are, besides, two separate out-buildings, one being the fire brigade house and the other is to provide storage. The whole of the works have been designed by Mr. J. P. Spencer, architect, of Newcastle and North Shields, under whose supervision they have been carried out by Mr. James Douglass, contractor, of Cullercoats.

BUILDING IN ABERDEEN.—There has recently been a revival in the house-building trade in Aberdeen, and a great many villas and mansion-houses are now being erected in the west-end suburbs, while towards the centre of the city numerous business premises are being rebuilt or improved. There is also a good prospect of work in the construction of public buildings, and the present boom promises to last for three years at least.

ELECTRIC LIGHTING WORKS, ROTHERHAM.—The opening of the electric light and power station erected by the Rotherham Corporation took place on the 23rd ult. at the new works, Rawmarsh-road. The buildings, the architect for which was Mr. J. Platts, are built of pressed bricks, with stone and buff terra-cotta dressings, the insides of the walls having glazed brick dados. The roof principals are of wrought iron, with pitch-pine boarding, varnished. The engine-room floor is laid with encaustic tiles, the battery-room with acid-resisting asphalt, and the passages and lavatories with terrazzo pavement. The switchboard platform is of white glazed bricks, with wood-block flooring and teak handrail and cast-iron standards. The site is enclosed with a brick boundary wall. The chimney is 162 ft. high. The water lodge for condensing purposes is 167 ft. long by 38 ft. wide, with a holding capacity of 220,000 gallons. The terra-cotta was provided by Mr. Jabez Thompson, of Northwich, and iron roofs by Newton, Chambers, & Co.

MIDLAND RAILWAY INSTITUTE AT DERBY.—An extension has just been made to the institute which was erected at Derby by the directors of the Midland Railway Company for the benefit of the staff in 1894. The building, which is situated close to the Midland station, originally included a reading and magazine room, a lending and reference library containing about 14,000 volumes, a restaurant, billiard-room with three tables, and a large concert-hall with proscenium and scenery. The new extension comprises a dining-hall capable of seating about 200, where dinners will be served daily, with an adjoining dining-room of smaller dimensions. On the ground floor is a new restaurant for the salaried staff of the company, and a café for the workmen, with connecting service-rooms and kitchen fitted with the most modern cooking appliances. Lavatories with hot and cold water are annexed. The new extension has been designed and carried out under the direction of the company's architect, Mr. C. Trubshaw.

TECHNICAL COLLEGE, DURHAM.—The new technical college at Durham, which is to be known as the Johnston Institute of Science and Art, was opened on the 22nd ult. The front of the college is in South-street. The building, which is three stories high, occupies a large site, and on the east side overlooks the wooded banks of the River Wear. It has been built from designs by Messrs. Oliver, Leeson, & Wood, architects, of Newcastle, by Messrs. J. G. Gradon & Son, contractors, of Durham. It is of red brick, with a red tiled roof, and a main entrance in South-street of stone. The upper apartment is intended for the art classes, the middle floor for chemistry and engineering, and the basement for physics, cookery, &c. There are large classrooms and accessory apartments, well equipped for the proper study of science, art, and technical subjects.

NEW PUBLIC HALL FOR HULL.—At a recent meeting of the Hull Corporation Property Committee Mr. Hirst, City Architect, reported that he had interviewed the Corporation's tenants in Waterworks-street, Junction-street, St. John-street, and Chariot-street. It was proposed to take down all the old buildings, to provide a large square close to the Monument, and to erect thirty-four shops, some with ground floor and basement only, and others with four floors. There were also provisions for a public hall, retiring-rooms, and three large reception-halls. The halls were to be on the first floor, with a main entrance from the square, and eight subsidiary entrances and exits in Waterworks-street and St. John-street. The large hall, which would accommodate 3,000 persons, would have side and rear galleries and an orchestra. It was proposed to carry the buildings out in two portions, commencing at the square, provision being made during the reconstruction for the older tenants, to whom option of position would be given when the buildings were completed. The square would measure 272 ft. from north to south, and 216 ft. from east to west, and would form an open space in the very heart of the city. The approximate estimate for erecting the building, including the purchase of necessary land, is 92,000*l*. The estimated rentals from the new shops, including two licensed houses to be rebuilt, one of which could be used in connexion with the public hall, was 6,836*l*., and for the public hall, 1,014*l*.; increase of rents on shops, 632*l*. It was moved by the Chairman and seconded by Councillor Skinner that the scheme be approved, and it was unanimously carried.

TOWER, PARISH CHURCH, BROUGHTON-IN-FURNESS.—The new tower to the ancient parish church of Broughton-in-Furness and the new peal of bells were dedicated on the 27th ult. by the Bishop of Carlisle. The tower was designed by Messrs. Austin & Paley, of Lancaster, and is in keeping with the Norman architecture of the church. The new bells are eight in number.

MISCELLANEOUS.

PROPOSED COUNCIL HALL FOR MARYLEBONE.—We hear that the Improvements Committee of the St. Marylebone Borough Council have recommended the acquisition of a fresh site for a County Hall, to include a hall for public meetings, instead of the present Court House and Vestry offices at the south end of Marylebone-lane, near Oxford-street. The site in question extends over 28,000 ft. superficial, and is situated between Circus-street and Wyndham-street, Marylebone-road, near Bryanston-square.

SPITALFIELDS MARKET.—Mr. Hargreaves Brown's Select Committee of the House of Commons have passed as proved the preamble of the London County Council's Bill for the purchase of the freehold and leasehold interests in Spitalfields Market, which is at present held upon an eighty-four years' lease from 1882 at an annual rent of 5,000*l*. The Select Committee's decision disposes of the Bill promoted by the Corporation of London for the same purpose. In each case we gather the promoters had made a provisional agreement to acquire all existing rights and franchises of the market and its site for 176,750*l*., together with 1 per cent. upon the purchase moneys for the costs, as agreed upon, of the vendors. The Committee were of opinion that (1) the rights of Stepney to become the market authority should be preserved; (2) the right of the City of London under their charter of *temp.* Edward III. should be preserved as it was by Section 41 of the Act of 1851; and (3) whilst that particular market could be best dealt with by the County Council, the Council are not a market authority for the metropolis; and (4) the measure must not be regarded as a precedent in any way.

SHADWELL FISH MARKET.—Mr. Brown's Select Committee of the House of Commons has passed as proved the preamble of the Bill introduced by the Corporation of London for purchasing the riverside fish market at Shadwell. They at the same time agreed to insert a clause which shall estop the Corporation from preventing the West Ham Borough Council from establishing and maintaining any market within the county borough. The market at Shadwell was established by a company under the powers of an Act passed in 1882. Though the Corporation opposed that measure at the time, upon the grounds that their intended improvements at Billingsgate would meet all requirements of the fish trade, they have since become owners of the market, and have agreed to take it over at the price of 175,000*l*. Under their present Bill, against which the London County Council have petitioned, the Corporation take powers for a ratification of their purchase, the widening of the High-street, Shadwell, the improvement and enlargement of the market, and the erection of houses to be let at moderate rents to the working classes.

THE STRAND AND THANET-PLACE.—On Monday, 10th inst., will be offered for sale at auction the site, upon a building lease for eighty years (with the option of acquiring the freehold), of Nos. 231 and 232, Strand, and the whole of Thanet-place in the rear, covering an area of more than 8,500 ft. superficial, opposite the Courts of Justice. The freehold of the nine houses in Thanet-place, occupying an area of 7,800 ft. superficial, and yielding a rental of 550*l*. per annum, was sold on November 30, 1898, for 20,500*l*. Thanet-place, named after the Tuftons, Earls of Thanet, marks the site of the Rose Tavern, cited for its vine-tree and garden in Thomas Fairchild's "City Gardener," 1722; in two letters written to Cole in 1776 Walpole refers to the painted room at the Rose Tavern without Temple Bar.

THE LATE MR. J. M. BRYDON.—The following gentlemen, amongst others, were present at the funeral of the late Mr. J. M. Brydon on the 29th ult.:—Mr. Wm. Emerson, President of the Royal Institute of British Architects; Professor Aitchison, past-President; Sir L. Alma-Tadema, R.A.; Sir John Taylor; Dr. Murray (British Museum); Dr. Rowand Anderson; and Messrs. Aston Webb, A.R.A.; John Belcher, A.R.A.; Leonard Stokes; T. W. Cutler; W. D. Caröe, F.S.A.; H. B. Wheatley, Society of Arts; Edwin T. Hall; H. T. Hare; W. H. Seth-Smith, President of the Architectural Association; Ernest George, and W. J. Locke, Secretary R.I.B.A.

THE CARLTON HOTEL, LIMITED.—A subscription list has been opened of 300,000*l*. 4 per cent. first mortgage debenture stock of this Company, which was formed in 1899 for acquiring the Carlton Hotel and adjoining property in the Haymarket and Pall Mall, comprising the Carlton Hotel, His Majesty's Theatre, and the Royal Opera Arcade, which are held under a lease from the Crown to the Company for a term of 72 years from October 10, 1898, at a yearly rent of 4,200*l*., underleases of the theatre (at a rent of 3,700*l*. per annum) and of the arcade with other minor parts of the property (at peppercorn rents) having been granted for the whole of that term—a few days excepted. In May last Messrs. Farebrother, Ellis & Co., acting for the Company, valued the property, with furniture, effects, and other assets, at the sum of 650,000*l*., and the Company state that their net trading profits during the period July 15, 1899-August 31, 1890, amounted to upwards of 50,000*l*. The Carlton Hotel was opened on July 15, 1899, having been erected upon a site of about 23,500 square feet from drawings made by the late C. J. Phipps; the completion of the fabric (with modified plans for the interior) was carried out by Mr. L. H. Isaacs and Mr. H. L. Florence, the decorations and equipments being by Messrs. Waring & Gillow. His Majesty's Theatre (illustrated in the *Builder*, May 8, 1897) was built from the designs and under the direction of C. J. Phipps, with whom was associated Mr. R. Walker for the internal decorations and scheme of colour, the general builder's work being by Mr. Lovatt. The Arcade we gather was added to the then King's Theatre or Italian Opera House, as part of the alterations and improvements, made in 1816-19 by John Nash conjointly with G. S. Repton, of the building (1790-1) designed by Michael Novosielski.

LIGHT RAILWAYS IN THE ENVIRONS OF LONDON.—Applications have just been made to the Light Railways Commissioners by the County Council of Middlesex for the construction and working of a large number of light railways in the Counties of London, Middlesex, and Hertford, comprising new lines in the parishes of Islington, Hornsey, Tottenham, Friern Barnet, Southgate, Finchley, Hendon, Willesden, Acton, Brentford, Ealing, Wembley, Harrow, Great Stanmore, Harrow Weald, Hampstead, Chiswick, Staines, Sunbury, Hampton, East Bedfont, Heston, Cranford, Twickenham, and others adjacent. A gauge of 4 ft. 8½ in. is adopted. The motive power proposed to be used is animal power, or electrical power applied upon a system approved by the Board of Trade, or any mechanical power other than steam power. For purposes of power stations, car depôts, and other buildings, the promoters seek to acquire sites in Redbourne-avenue, Finchley (about 3 acres), Port-lane, Sunbury (10 acres), at Bull's Bridge, Norwood, Middlesex (10 acres), and on the Bath-road, Heston (8 acres). With two or three exceptions, where fields are to be traversed, the lines will be laid along streets or roads or waste lands by the roadside. For the widening of roads where necessary so much property will be taken as may be needed for making up the metalled portion of the road to a minimum width of 32 ft. between the kerbs and for providing a footpath along each side of the road from 6 ft. 6 in. to 9 ft. wide. Where fields are crossed (as at Heston, Bedfont, Old Oak-lane, Willesden, and the Alexandra Park Estate) a permanent way, 24 ft., will be made across them.

EMIGRATION IN THE BUILDING TRADES.—According to the annual report of the Board of Trade on emigration and immigration, the male adults who left the United Kingdom in the year 1900 included 158 builders; 708 bricklayers, masons, plasterers, slaters, &c.; 37 brick and tile makers, potters, &c.; 1,089 carpenters and joiners; and 428 painters, paperhangers, plumbers, and glaziers. Of this total of 2,420, British North America was the destination of 121, Australasia of 246, and the United States of 1,055, whilst 998 went to "other places."

ELECTRIC LIGHT WORKS, PERTH.—The new electric light station buildings, Perth, erected from plans prepared by Mr. R. M'Killop, the Burgh Surveyor, under the direction of the consulting engineer, Mr. W. C. C. Hawtayne, M.I.E.E., London, are of red facing brick. They are situated at the harbour road, adjoining the River Tay. They comprise an engine-room, 115 ft. long by 38 ft. wide; a boiler house, 115 ft. long and 42 ft. wide; and an accumulator room, 48 ft. long by 31 ft. wide. The test room and offices are to the front, and over these a dwelling-house is provided for the engineer who will look after the works. The cost of the new work and installation is about 40,000*l*.

PROPOSED MEMORIAL TO PROFESSOR ANGEL.—It is proposed to found a prize or scholarship in memory of the late Professor Angel, who was for many years instructor in steam, applied mechanics, and practical plane and solid geometry, at the City of London College (City Polytechnic). Former pupils and others who wish to subscribe to the fund are requested to communicate with Mr. P. J. Gillbard, Hon. Secretary to the "Henry Angel

Memorial Fund," City of London College, White-street, E.C.

BERLIN INTERNATIONAL FIRE EXHIBITION.—The attention of the British Fire Prevention Committee having been called to the fact that the lack of enterprise on the part of the English fireproofing and fire appliance trade had resulted in this country being scarcely represented at the Berlin International Fire Exhibition, steps have now been taken to see that Great Britain is at least represented by some scientific exhibits. A large stand has now been retained by the Committee to show photographs, plans, &c., of such materials and systems of construction as have been before the Committee for investigation, and a number of models are also being sent to Berlin. Further, some large plans and drawings of London fires are being shown, together with a very interesting collection of old insurance plates. Although the British Fire Prevention Committee has from patriotic motives tried to step into the breach at short notice with exhibits arranged from a scientific point of view, the lack of enterprise on the part of the trades concerned is highly regrettable, as the natural result can only be that much of the business to which Great Britain might well lay claim must again drift into the hands of the more energetic foreign competitors who have taken the pains to show what they can do in meeting the requirements of fire protection.

NEW PIER, MINEHEAD.—On the 25th ult. a new pier was opened at Minehead. The pier is 700 ft. long and 24 ft. wide at the narrowest width, and it is widened out at the head to a width of 76 ft., the level of the deck being about 20 ft. above high water of ordinary spring tides. In addition to the widening at the head of the pier, there are two embayments on each side, suitable for either kiosks or wind shelters. The pier is built of composite piles of cast iron and steel, and lattice girders. A cast-iron hand-railing surrounds the pier, with seats at frequent intervals, lamp standards being placed at suitable intervals. The work has been carried out from the designs, and under the superintendence, of Mr. John J. Webster, M.Inst.C.E. The whole cost of the works was under 12,000*l*.

MEMORIAL WINDOW, ST. MARY'S, CHARD.—The fourth of a series of memorial windows at St. Mary's Church, Chard, has just been erected in the north aisle of that church. The subject of the window is that of the three Marys. Beneath the window, on a polished marble slab, is a brass tablet bearing an inscription. Both window and brass are from the studios of Messrs. F. Drake & Sons, of Exeter.

CAPITAL AND LABOUR.

OPERATIVE PAINTERS, NORTH STAFFORDSHIRE.—The operative painters of North Staffordshire having through their trades union sent to the Masters' Association a demand for a penny an hour advance and alteration in the working rules, Mr. T. Blashill, F.R.I.B.A., London, was appointed by the Board of Trade under clause 9 of the working rules to arbitrate upon the matter. He sat at the Grand Hotel, Hanley, recently, to take evidence, and was met by twelve members of the Conciliation Board—six masters and six operatives. The operatives' representative said they made their claim for an advance of wages on the ground that the painters were not adequately paid according to the wages paid in other branches of the building trades, and they were not getting a living wage. The loss of time in the winter months was another reason why they asked for an advance in wages. To this the employers stated that the wage paid to painters in this district was quite up to the average in other towns, and compared favourably with the wages paid to other branches of the building trades. The arbitrator asked for some comparison on this view of the question, and the following figures were supplied:—

	Painters.	Joiners.	Bricklayers.	Plasterers.
North Staffs...	7½ ...	8½ ...	8¾ ...	9
Bolton	8½ ...	9 ...	10 ...	10
Manchester ...	8½ ...	9½ ...	10 ...	10
Wolverh'pton	7½ ...	8½ ...	8½ ...	8½
Crewe	7 ...	7 ...	8 ...	9

An operative stated that they had only received one advance in twenty years. The wages at the beginning of 1874 were 6d. per hour. An advance of ½d. per hour was given in April, 1874, making the wages 6½d. per hour. This was taken off in 1880, and the wages were raised in 1894 to 7d. per hour. Wages were raised again in 1897 to 7½d. per hour, at which they remain at the present time. (This matter was arbitrated on last year in May, when the arbitrator decided that the wages should remain as at present, not less than 7½d. per hour.) An alteration of working rules was asked for as follows:—Rule 4.—The operatives asked for 6d. per day for expenses on all lodging off jobs on the ground of extra expense and loss of comfort when lodging away from home.—To this the employers plead that there is no precedence for such a course, it not being the custom in the building trades. Rule 5.—That paying on the job be discontinued, and wages paid at the shop, or time being allowed to be at the shop at pay time.—The employers said they would leave it entirely to the arbitrator, as this did not affect many, wages generally being paid at the shop at 12 o'clock. A vote of thanks to Mr. Blashill closed the inquiry, after two hours' discussion.—*Staffordshire Sentinel.*

BUILDERS' LABOURERS' DISPUTE, LEICESTER.—The award of Sir William Markby in the dispute between the builders' labourers engaged in the new Wholesale Market and their employers has been published. The workmen originally "turned out" on the contention that they alone were entitled to mix or lay concrete. But the arbitrator has adopted the view of the employers on the subject, and affirmed their right to employ navvies for this purpose if they choose.

DUNDEE QUARRYMEN'S STRIKE.—The strike of workmen at the quarries in the vicinity of Dundee recently acquired by a syndicate from the trust estate of Messrs. James Morrison & Son, has come to an end. At the Westhall and Duntrune quarries a section of the employees came out on strike against a reduction of ½d. per hour on the rate of wages. The men, or at least the majority of them, have returned to work on the employers' terms.

NORWICH CARPENTERS AND THEIR WAGES.—It will be remembered that on March 1 the carpenters and joiners of Norwich made a demand for an increased rate of wages, giving the three months' notice required by the rules. A conference between the employers and the men took place about three weeks ago, and it was carried on in a very amicable spirit on both sides. Correspondence followed on various matters, and terms were received from the masters. At a special meeting recently of the Amalgamated Carpenters and Joiners' Society it was decided to accept the employers' offer of ½d. an hour advance to begin on January 1 next; time and a quarter for overtime instead of the ½d. per hour previously paid; the settlement to stand for four years. —*Eastern Daily Press.*

PENRHYN QUARRIES.—The officials of this quarry are now working as quarrymen, and several charges of molesting them were tried at Bangor Petty Sessions on the 4th, fines being inflicted. The quarry is to be opened to the men on the 11th, but it is not anticipated that many will resume work; it also seems impossible to give effectual police protection to men whose homes lie scattered over a wide mountain district.

LEGAL.

CASE UNDER THE LONDON BUILDING ACT:

DISTRICT SURVEYOR OF EAST HACKNEY (SOUTH) AND NORTH BOW *v.* GEO. S. SHAW.

THIS case was heard at the North London police-court, before Mr. Fordham, on the 24th ult. The District Surveyor explained that he found a stove fixed in this house in a dangerous way and served notice on the occupier to amend it. It was amended. He then applied to the occupier for a fee of 10s. for fixing a stove for trade purposes. Meanwhile the occupier left and could not be found. He then applied to the owner (the defendant). The defendant admitted he was the owner, but said that he knew nothing about the stove. The District Surveyor claimed under Section 154. The case was adjourned for seven days in order that the magistrate might consider it.

Mr. Fordham delivered judgment in the case on May 31. He said he felt it was a case that pressed rather hardly on the defendant, but he had examined the sections in the Act and cases bearing on the point, and come to a definite conclusion on the case. He recounted the facts as above stated, and that there was no builder in this case, but Section 5 (33) stated that where no builder is employed the owner becomes the builder. He therefore gave judgment that the fee of 10s. was due and 13s. costs.

The Surveyor remitted the 10s. awarded for his attendance under the circumstances, and 13s. was paid by the defendant.

ALLEGED INFRINGEMENT OF ANCIENT LIGHTS AT FOLKESTONE.

THE case of White *v.* Flude came before Mr. Justice Buckley in the Chancery Division of the High Court of Justice on the 4th inst.

Mr. Henry Terrell, K.C., and Mr. Cave appeared as counsel for the plaintiff; and Mr. Astbury, K.C., and Mr. Watson for the defendant.

It appeared from the opening statement of Mr. Terrell that the action was brought by the plaintiff for an injunction to restrain the defendant from interfering with two ancient lights in the plaintiff's premises, No. 30, Victoria-road, Folkestone. There was no question raised as to the plaintiff's lights being ancient. That was not traversed. The plaintiff's title was also not traversed, and there was no question of acquiescence. The only question was, whether or not defendant's building interfered with the access of light to plaintiff's ancient lights. The defendant had put up a mission hall adjoining the plaintiff's house, and this was said to interfere with the access of light to the basement window, a kitchen window, and with the light of a little window in the outhouse or store shed, at the end of the yard opposite the plaintiff's premises. The plaintiff had enjoyed the light to these windows for upwards of twenty years, and there was now in consequence of the defendant's building a very substantial diminution of light coming to both windows.

Mr. Andrew George Bromley, an architect and surveyor practising in Folkestone and Canterbury, and Mr. Howard Chatfeild Clarke, an architect and surveyor, gave evidence to the effect that the defendant's building had materially affected the access of light to the windows in question.

In the result, his lordship, having heard the evidence of Mr. Ravenscroft Roger Smith, professor of architecture at King's College, and of Mr. Tilton, Tunbridge, a builder, to the effect that the mission hall did not interfere with the light coming to the plaintiff's two windows, characterised the action as a frivolous one, and dismissed it with costs.

RECENT PATENTS:

ABSTRACTS OF PATENTED INVENTIONS.

2,177.—A DEVICE FOR HEATING APPARATUS: *F. F. Royle.*—The contrivance is intended for regulating the steam or hot-water supply of rooms that are warmed with steam or hot-water pipes and for similar apparatus. The force of expansion due to changes of temperature is utilised to work a valve that controls the flow of a fluid under pressure acting upon a piston or diaphragm which works the valve that regulates the supply; the thermostatical apparatus is available for regulating the temperature of water in a swimming-bath, for working boiler-dampers, or for ventilators. See also Specification No. 19,416, of 1893, for the expansible metal thermostat.

2,209.—WINDOW-SASH FASTENINGS: *R. Hine.*—A withdrawing spring is fitted upon a bolt in an arm pivoted to a bracket on the upper sash, a right-angled extension from the base of the bracket is affixed to the face of the meeting-rail, and a tongue projects from the lower side of a handle carried by the front end of the bolt. For fastening purposes one turns the arm downwards between two brackets on the lower sash so as to cause the tongue to engage with ratchet teeth on the faces of the brackets.

2,212.—ELECTRICAL ARC AND INCANDESCENT ARC-LAMPS: *W. Peritz.*—To prevent the electrodes from becoming consumed the inventor encloses them in a sealed glass globe that contains an inert gas or is exhausted as entirely as is possible. The electrodes may be movable or have a movable core for striking the arc. For incandescent arc-lamps he encloses the arc in a mantle composed of some refractory material such as rare earths mixed together, and insulates it from the electrodes with glass at some little distance from the arc.

2,220. — APPLIANCES FOR EXCAVATORS, DREDGERS, &C.: *E. McGregor.*—The carrying rope, which is passed over supports and is anchored at a distance, can be displaced from its normal position with weights and other supports will avail to vary its normal position horizontally. The rope is passed through a cradle carried by a trolley to be traversed along rails upon the support by the turning of a screw. The remotest support may take the shape of a curved rail upon supports; arms and pulleys sustain the scoop, which is drawn along the carrying rope with a sling joined to the hauling rope. On the scoop is a spring-catch to which the sling is secured in such a manner that as the hauling rope becomes abnormally strained when the scoop is deeply embedded the sling will fall into the position for release.

2,222. — ELECTRICITY QUANTITY-METERS: *A. Wright and Reason Manufacturing Company.*—A mercury voltameter comprises a stoppered or entirely-sealed glass vessel, wherein is a mercury anode within a pocket at a level higher than that of a mercury cathode, into which platinum connecting wires are sealed, the vessel being filled with a suitable electrolyte—say, a solution of mercurous nitrate; as the mercury cathode increases in volume it flows over a ridge in regulated small quantities into a long vertical tube, which at the outset holds solution only, whereupon the position of the anode induces the dense solution upon its surface to flow down to the cathode; in order that the circulation may not be impeded by the reduction of the anode below the level of the lip upon the edge of its pocket, the vessel is provided with an auxiliary bulb in which an automatical supply of mercury keeps the anode surface at its proper level; the quantity of passing electricity is indicated by an adjacent scale which records the height of the mercury in the vertical tube. The instrument, which is used "shunting," can be reset by being turned over to the left hand and then replaced.

2,249.—MACHINES FOR TENONING WOOD: *T. N. Robinson.*—A sliding table carries the piece of timber and when it has been fed forward between the rotary cutters a treadle is depressed for throwing the feed mechanism out of gear; brackets which slide upon the vertical face of the pedestal carry the rotary cutters; a hand-wheel that regulates the velocity-ratio of friction discs controls the speed of the feed, the feed being started by means of the pressure—by the treadle—of a friction disc against the friction-wheel; a strap wound around a drum pulls the table forwards, and weights pull the table backwards again at the liberation of the treadle.

2,364.—A FASTENING FOR DOOR-KNOBS: *M Solomon.*—The two spindles are fashioned so that they can be screwed into the lock-follower upon differently-pitched threads—for example, twelve, and twenty-four, to 1 in.—and are joined with a screw of eighteen threads to 1 in.; thus either knob cannot be unscrewed when it is turned, since it becomes locked by the differential threads, but the knobs may be disconnected when they are being unscrewed at suitably relative speeds. The contrivance is described as being also adapted for other articles.

2,375.—A CONTRIVANCE FOR SLIDING-WINDOWS: *S. C. Taylor.*—For a sliding-window that can be swung out of its guides the lower sash is arranged to slide within an inner and higher frame, whilst the upper sash slides in an ordinary frame; a stop is fixed at one side of the upper part of the inner frame, and beneath that is hinged a deeper stop; frame-ribs engage with tongues upon the lower sash, their upper ends being cut away so that the lifted sash may be moved inwards and be then lowered and swung into the room when the deep hinged stop has been turned backwards; two pairs of weights on the inner and outer frames, respectively, balance the lower sash, and another pair on the outer frame balance the upper sash; the upper portion of the outer frame has guiding strips, and the lowered upper sash is guided with pins that run in grooves of which the horizontal parts will admit of the sash being turned downwards; a plate (which also serves as a lock) upon the outside of the lower sash, to be forced against one of the frame-ribs with a pin fastened to the plate and passed through the sash to the inside, will prevent it from rattling.

2,420.—AN AUTOMATICAL FLUSHING VALVE: *G. E. Ridgway.*—The valve, whilst more particularly devised for the discharge of effluent sewage from filter-beds, is adapted for other flushing purposes; a hinged flap-valve reposes against the inclined seat of the distributing channel; the sewage will flow through holes in the valve and its seat, respectively, into a vessel mounted upon the valve as soon as the liquid has risen to a certain level. When the vessel is filled it tilts so as to overbalance and open the valve; an outlet or valve of the vessel provides for the escape of the imprisoned fluid. In another form a pipe from the side of the distributing channel conveys the fluid into the containing vessel, which is mounted upon a bracket attached to the valve, and is provided with a siphon or other suitable outlet for determining the times of discharge.

2,450.—AN APPLIANCE FOR USE WITH THE ALARMS OF GAS, WATER, OR ELECTRICITY SUPPLY SYSTEMS: *G. T. Weedon.*—For the turning-on of the supply at any pre-determined time a weight that hangs upon the winding lever of the alarm mechanism is joined with a cord to the tap-cock or electrical switch, and will fall when the alarm has been sounded; the movement of the lever is limited with stop-pins.

2,451.—LIFTING JACKS: *C. Portway and F. T. Graham.*—In order that the operation of the lifting lever shall lower the load step by step, the inventors have devised a two-pronged pivoted lever in such a manner that projecting side-springs engage with the outer ends (upon their under surfaces) of two clutches as soon as the handle is forced downwards; thereupon the action of the clutches becomes reversed—the one locks the stem, whilst the other becomes disengaged as it moves upwards. The invention embodies an improvement of that described under No. 7,190 of 1889.

2,473.—ELECTRICAL ARC-LAMPS: *E. C. Marçay.*—The arc is formed at the free ends of a fixed carbon rod and a surrounding hard carbon helix. If a globe is employed for enclosing the arc and carbons, the latter should be made as incandescent lamp filaments.

2,524.—LIFT-VALVES: *H. Adams.*—For a stop-cock adapted for domestic water supply the inventor fashions the casing with its lower portion enlarged in order to constitute the seating of a ball-valve. Through the top of the casing he inserts a spindle, upon the end of which the ball is screwed. Stops upon the spindle restrict the movement of the valve, which may be seated in the lower extended portion of the casing.

2,534.—AN APPLIANCE FOR USE WITH STEAM PILE-DRIVERS: *H. H. Cochrane and A. H. Cochrane.*—For pile-drivers wherein the cylinder, sliding upon the piston-rod, serves for the monkey the inventors provide upon the piston an upper tubular piston-rod that projects through the upper end of the cylinder, together with a lower solid piston-rod projecting through the lower end of the cylinder so as to rest upon the pile. A plate retains in its place a lug, from the cylinder, that moves between two vertical baulks, and a tubular valve joins the steam-pipe to the piston-rod. In the sliding part of the valve are two cylinders having different diameters and separated by an annular passage. The diameters are arranged so that the pressure of steam shall maintain the valves as "cut off," and steam from above the piston shall be exhausted through openings, the tubular piston-rod, and the tubular valve. Upon the depression of the valve by the action of a pivoted lever, the steam will flow from a pipe through the openings and the tubular piston-rod into the cylinder.

2,585.—STONE-SAWING MACHINERY: *G. F. Fitton.*—Channel-iron is used for the construction of the swinging frame at its ends and sides with distance corner-pieces, and for the movable heads on to which the blades are secured, the heads being fastened to the ends with double T-headed bolts that are passed between the channels and then turned. For a heavier frame a built-up box section is contrived and a guideway for the movable heads is provided in the shape of angle-irons affixed to it; the swinging water-supply pipes are counter-balanced with weights over their axles, and they are fashioned in ⊔ instead of ⊥ shape. Arrangements for ensuring either a slow or a quick feed or return are made by means of spur-wheel gearing mounted, in each instance, upon a pivoted lever.

2,621.—AN INDICATOR FOR USE IN ELECTRICAL LIGHTING: *A. Ruhstrat and E. Ruhstrat.*—The inventors seek to indicate the occurrence of short circuit in a lighting circuit. In one form they put a lamp in shunt with the main fuse; when the fuse blows at the lighting of the lamp a short circuit is announced, the other lamps becoming dim or extinguished; a fuse may be employed as a protector of the lamp.

2,644.—FLAP AND SLUICE VALVES: *S. H. Adams.*—In order that the valve, which is hinged on to the framework, may be operated apart from the action of the fluid that flows through it, the inventor joins a crosshead to the flap with ears, and provides a screw, or other suitable mechanism, for the lifting or lowering of the crosshead; the valve may be maintained in its closed position by means of the engagement of the extended ends of the crosshead with catches set upon the framework.

2,675.—AIR-HEATING STOVES: *C. Jünger.*—The whole of the stove—the fireplace excepted—is built up with chamotte bricks, and with Dutch tiles for the external facing. Two partitions divide it into three compartments; a plate normally closes the shoot down which the fuel is shot from a fixed scuttle. The flames and products of combustion pass through horizontal passages and apertures into a narrow channel and thence through angle-wise tubes into the escape-pipe. Adjustable openings admit air into the lower part of the stove; a channel and openings conduct it to a space around a coil of tubes, whence, after having been warmed, the air escapes through a pierced plate; fresh air from the lower portion of the stove enters through two pipes, and the draught through the pipes can be regulated by a suitable adjustment.

MEETINGS.

SATURDAY, JUNE 8.

British Institute of Certified Carpenters.—Visit to Kew Gardens. 3 p.m.

Northern Architectural Association.—Visit to Hexham.

MONDAY, JUNE 10.

Clerks of Works Association (*Carpenters' Hall*).—Monthly meeting. 7.30 p.m.

WEDNESDAY, JUNE 12.

Institute of Sanitary Engineers (*Incorporated*) (19, *Bloomsbury-square, W.C.*).—General Purposes and Finance Committee at 4 p.m. Half-yearly general meeting at 7 p.m.

THURSDAY, JUNE 13.

Society for the Encouragement of the Fine Arts.—Dr. Phené, V.P., F.S.A., on "Our Highly Refined Forefathers in Pre-Roman Britain." 8 p.m.

FRIDAY, JUNE 14.

Edinburgh Architectural Association.—Annual excursion, to Hexham and Durham.

SATURDAY, JUNE 15.

Edinburgh Architectural Association.—Annual excursion (concluded).

SOME RECENT SALES OF PROPERTY:

ESTATE EXCHANGE REPORT.

May 13.—By MOSES SMITH & SONS (at Wrington).

Wrington, Somerset.—Redhill Farm, 21 a. 2 r. 32 p., f.	£1,000
Various enclosures, 14 a. 1 r. 8 p., f.	855
Wrington Hill Farm, 133 a. 1 r. 35 p., f.	1,075
Tutton's Piece, 3 a. 0 r. 9 p., f.	120

May 23.—By T. J. BARNETT & Son (at Birmingham).

Harborne, Staffs.—The Home Farm, 97 a. 1 r. 15 p., f.	5,000
Northfield, Worcester.—Bartley Green Estate, 47 a. 1 r. 30 p., f.	2,200

By MOSES SMITH & SONS (at Bristol).

Westerleigh, Glos.—Weston's Farm, 13 a. 3 r. 17 p., f.	850
Various enclosures, 37 a. 3 r. 13 p., f.	1,292
Frenchay, Glos.—Goreham Mead, 11 a. 2 r. 23 p., f.	1,275
Goreham Hill enclosure, 4 a. 0 r. 18 p., f.	202
Hambrook, Glos.—Residence and 7 a. 3 r. 34 p., f.	1,550
Various enclosures, 127 a. 1 r. 19 p., f.	6,265
A Pennant stone quarry and 3 a., f.	240

By EDWIN EVANS (at Clapham Junction).

Fulham.—40, Anselm-rd., u.t. 71½ yrs., g.r. 2*l.* 10s.	300
Battersea.—4, Kersley-st., u.t. 76½ yrs., g.r. 8*l.*, e.r. 45*l.*	340
11 and 13, Lavender-rd., u.t. 25 yrs., g.r. 8*l.*	460
Wandsworth.—439 and 441, York-rd., u.t. 81 yrs., g.r. 17*l.*, r. 53*l.*	355
8 to 12, Summerley-st., u.t. 79½ yrs., g.r. 50*l.*	800
Balham.—34 to 40 (even), Cathles-rd., u.t. 90 yrs., g.r. 27*l.*, r. 132*l.*	1,240
Tooting.—22 and 24, Graveney-rd., u.t. 77 yrs., g.r. 10*l.*	358

May 24.—By STAFFORD & ROGERS (at Bedford).

Goldington, Beds.—The Cottage and 1 a. 3 r. 1 p., f.	600
Two enclosures, 4 a. 2 r. 17 p., f.	£870
Enclosures of garden land, 54 a. 3 r. 39 p., f.	4,300
Wall Close, 14 a. 1 r. 8 p., f.	900
Twelve cottages and 2 a. 2 r. 20 p., f.	1,270
Enclosures of land, 1 a. 1 r. 7 p., f.	235
Impropriate tithe rent-charges of 36*9l.* 12s.	5,800

By CLEMENTS, SON, & HUGHES (at Coventry).

Stoneleigh, Warwick.—Residence and 1 a. 1 r. 25 p., f.	560

By LINNETT & LANE.

Harlesden.—24, Greenhill-park, f., e.r. 60*l.*	925
8, Baker-rd., u.t. 81 yrs., g.r. 7*l.* 10s., e.r. 40*l.*	350
Wealdstone, Middlesex.—Palmerston-rd., a block of land, f.	230

By A. J. SHEFFIELD.

Poplar.—33 and 35, Augusta-st., u.t. 47 yrs., g.r. 6*l.*	235

By F. & W. STOCKER.

Lee.—26, Turner-rd., f.	430

By W. N. WILLOUGHBY.

Norwood.—9, Chestnut-rd., u.t. 82 yrs., g.r., &c., 7*l.* 12s., r. 45*l.*	550
Herne Hill.—171 and 173, Norwood-rd., u.t. 70 yrs., g.r. 12*l.* 12s., r. 64*l.*	720

May 25.—By SENIOR & GODWIN (at Blandford).

Charlton Marshall, Dorset.—Enclosures of down land, &c., 203 a. 3 r. 33 p., f.	500
Four cottages and 5 a. 1 r. 0 p., f.	634
Various enclosures, 21 a. 3 r. 31 p., f.	1,865

May 29.—By MATTHEWS, MATTHEWS, & GOODMAN.

North Cheam, Surrey.—London-rd., The Laurels and nearly 1 a., f.	950
Staines, Middlesex.—Leacroft-rd., Craigmar, f., r. 43*l.*	655

By ROGERS BROS.

Forest Hill.—13, 15, and 17, Dalmain-rd., u.t. 60 yrs., g.r. 12*l.* 10s.	450
82, Ewart-rd., u.t. 75 yrs., g.r. 4*l.* 10s.	170
Old Kent-rd.—25 to 43 (odd), Cooper's-rd., u.t. 32 yrs., g.r. 40*l.*	1,970
Dulwich.—36 and 38, East Dulwich Grove, u.t. 71 yrs., g.r. 14*l.*, r. 72*l.*	785
Peckham.—123 and 125, Albert-rd., u.t. 64 yrs., g.r. 10*l.*	565
190 to 200 (even), Albert-rd., u.t. 54 yrs., g.r. 36*l.*	1,290
182 to 188 (even), 202 and 204, Albert-rd., also i.g.r. 12*l.* 6s., u.t. 55 yrs., g.r. 42*l.*	1,400

By WAGSTAFF & SONS.

Holloway.—108, Lady Margaret-rd., u.t. 67 yrs., g.r. 6*l.* 15s., r. 50*l.*	580

By WILLIS & CROUCH.

Acton.—High-st., i.g.r. 45*l.*, u.t. 56 yrs., g.r. 30*l.*	310
Norwood.—Auckland-rd., Summerleigh, u.t. 82 yrs., g.r. 10*l.*, r. 50*l.*	465

By WYATT & SON (at Chichester).

Stockbridge, Sussex.—A freehold cottage	270
Six plots of land, f.	315
Westergate, Sussex.—Copyhold enclosures, 13 a. 3 r. 8 p.	400

By PEIRCE & THORPE (at Northampton).

Tiffield, Northants.—A freehold farm, 77 a. 1 r. 33 p.	2,050
Pattishall, Northants.—Phipps Barn Farm, 42 a. 2 r. 39 p., f.	825
Stonepit Leys, Sign Hill, and Allotment closes, 47 a. 1 r. 7 p., f.	1,070
A freehold farm, 57 a. 3 r. 22 p.	1,125
Descote, Northants.—Two enclosures, 27 a. 1 r. 22 p., f.	600
Eastcote, Northants.—Two enclosures, 8 a. 3 r. 33 p., f.	460
Homestead and 7 a. 1 r. 25 p., f.	530
Elm Tree Close, 3 a. 2 r. 37 p., f.	220

By BOYTON, PEGRAM, & BUCKMASTER (at Walham Green).

Shepherd's Bush.—8, Thornfield-rd., u.t. 76½ yrs., g.r. 7*l.*, r. 28*l.*	270
Fulham.—20, Epirus-rd., u.t. 80 yrs., g.r. 7*l.* 7s.	340
12, Walham-av., u.t. 78 yrs., g.r. 6*l.*	100

By THORNBORROW & Co. (at Penrith).

Penrith, Cumberland.—Enclosures of land, 43 a. 3 r. 35 p., f.	2,150
Newton Reigny, Cumberland.—Enclosures of land, 13 a. 2 r. 33 p., f.	550

By C. R. MORRIS, SONS, & PEARD (at Bridport).

Powerstock, Dorset.—Nappercombe Farm, 308 a. 3 r. 25 p., f.	7,200

By BIDWELL & SONS (at Cambridge).

Cambridge.—11, Peas-hill, area 1,690 ft., f., r. 80*l.*	2,050
1, 2, and 3, Wheeler-st., area 1,314 ft., f., r. 102*l.* 10s.	2,650
2 and 3, Parson's-court, area 1,506 ft., f., r. 50*l.*	1,200

By ALBERT BULL (at Ventnor).

Godshill, Isle of Wight.—French Mill and 9 a. 2 r. 24 p., f.	750
Fairfield's Estate, 98 a. 1 r. 27 p., f.	3,000
Whitwell, Isle of Wight.—Southford Mill, f., r. 40*l.*	700
Niton, Isle of Wight.—1 and 2, Shipton Villas, f.	290
Ventnor, Isle of Wight.—High-st., Havelock Villa, f., r. 40*l.*	615
St. Boniface-rd., Clovelly, f.	760
Belle Vue-rd., Castle View, f.	540

May 30.—By JOHN DAVIES.

Tottenham.—2, Braemar-rd. and 30, Culvert-rd., f.	810
Kensington.—50, Abingdon-rd., u.t. 58 yrs., g.r. 5*l.* 10s., r. 45*l.*	500
Norwood.—52, Palace-rd., f., r. 32*l.*	400

By Messrs. KEMSLEY.

Rainham, Essex.—Upminster-rd., a block of building land, 9 a. 1 r. 4 p., f.	2,560
Wandsworth.—Park-rd., f.g.r.'s 14*l.*, reversion in 78 yrs.	360
Hornsey Rise.—Lambton-rd., f.g.r's 18*l.* 12s., reversion in 77 yrs.	480

By WM. STEVENS.

Walthamstow.—1 to 23 (odd), Park-rd., u.t. 87 yrs., g.r. 48*l.*	1,295
Stoke Newington.—19, Victoria-gr., u.t. 9¾ yrs., g.r. 5*l.* 5s.	230

By R. J. SUTER.

Walthamstow.—9 and 11, Nicholson-rd., f.	735

By J. A. TRYTHALL.

Croydon.—9, Tamworth-rd., u.t. 49½ yrs., g.r. 6*l.*, r. 30*l.*	300

By NEWBON, EDWARDS, & SHEPHARD.

Holloway.—55, Parkhurst-rd., u.t. 23 yrs., g.r. 7*l.* 10s., e.r. 55*l.*	470

COMPETITIONS, CONTRACTS, AND PUBLIC APPOINTMENTS.

(For some Contracts, &c., still open, but not included in this List, see previous issues.)

COMPETITIONS.

Nature of Work.	By whom Advertised.	Premiums.	Designs to be delivered
*Laying out Winter Garden	Penzance Corporation	21*l.* and 10*l.* 10s.	Sept. 1

CONTRACTS.

Nature of Work or Materials.	By whom Required.	Forms of Tender, &c., Supplied by	Tenders to be delivered
Electrical Plant	Taunton Corporation	G. H. Kite, Municipal Buildings, Taunton	June 11
Laying Cast-iron Pipes, &c.	Sunderland Water Company	J. W. Sutherland, 16, Fawcett-street, Sunderland	do.
Pipe Sewers, &c.	Hertford Corporation	J. H. Jevons, Civil Engineer, Town Hall, Hertford	do.
Schools, Rofft-y-Crown, Denbigh	.....	A. F. Roberts, Denbigh	do.
Buildings at Gasworks	Carlisle Corporation	A. H. Collingwood, Town Offices, Carlisle	do.
Cottage, Usk, Mon.	Great Western Railway Company	G. K. Mills, Paddington Station, W.	do.
Schools	Beccles School Board	A. Pells, Architect, London-road, Beccles	June 12
House, Cranbrook-road, Chiswick, W.	.....	F. & W. Stocker, Surveyors, 90, Queen-street, E.C.	do.
Cottages, &c.	Balrothery (Ireland) R.D.C.	A. Scott, Civil Engineer, 16, William-street, Drogheda	do.
Electric Sub-station	Hebden Bridge (Yorks) T.C.	J. Lord, Civil Engineer, Town Hall, Halifax	do.
Additions to Asylum, Killarney	.....	J. F. Fuller, Architect, Brunswick Chambers, Dublin	do.
Granite Setts (12,000 tons)	Bury Corporation	A. W. Bradley, Civil Engineer, Bank-street, Bury	do.
Two Houses, Castle-avenue, Buncrana, nr. Londonderry	Mr. P. Campbell	T. Johnston, Architect, 11, East-wall, Londonderry	do.
Warehouses, Bristol	Messrs. Grace & Hayes	H. J. Jones, Architect, 12, Bridge-street, Bristol	June 13
Street Improvements, Beancroft-street, &c	Castleford U.D.C.	W. Green, Surveyor, Council Offices, Castleford	do.
*Transformer Sub-station Buildings	Dublin Corporation	City Engineer, City Hall, Dublin	June 14
Four Cottages, &c., Leixlip, Ireland	Celbridge R.D.C.	J. Whelan, Architect, Council Offices, Celbridge	do.
Additions to Mills, Leaventhorp, Bradford	.....	Milnes & France, Architects, 99, Swan-arcade, Bradford	do.
Granite Setts (1,700 tons)	Hull Corporation	A. E. White, Engineer, Town Hall, Hull	do.
*Heating	Workington School Board	See Advertisement	June 15
Schools, Chantry-lane, Canterbury	.....	W. J. Jennings, Architect, Canterbury	do.
Seven Shops, Newgate-street, &c., Bishop Auckland	Mr. H. P. Tyler	F. H. Livesay, Architect, 107, Newgate-street, Bishop Auckland	do.
Cemetery Chapel, &c., Southall Green	Southall-Norwood Burial Board	Chairman, Cemetery Offices, Southall	do.
Additions to Workhouse	Christchurch Guardians	E. H. Burton, Architect, Christchurch	do.
School Buildings	Edzell (N.B.) School Board	D. W. Galloway, Architect, 2, Market-street, Brechin	do.
Additions to School, Embleton	.....	Rev. W. S. Davies, Embleton, Cockermouth	do.
Hospital, Stobhill, Springburn	Glasgow Parish Council	Thomson & Sandilands, Archts., 241, West George-st., Glasgow	do.
*Draining, Kerbing, &c.	Hendon U.D.C.	Engineer, Public Offices, Hendon, N.W.	June 17
Bridge Widening, Holderness	North-Eastern Railway Company	W. J. Cudworth, Engineer, York	June 18
*Alterations, &c., to Dover Hospital	Dover Hospital	See Advertisement	June 19
*Pump House and Well	Hammersmith Borough Council	Borough Surveyor, Town Hall, Hammersmith	do.
*Road Repairs	Metropolitan Asylums Board	Embankment, E.C.	June 20
*Depôt Buildings	Deal U.D.C.	Borough Surveyor's Office, 23, Queen-street, Deal	do.
*Tar Paving	East Ham School Board	S. Jackson, Architect, 65, Fenchurch-street, E.C.	June 24
*School Buildings	do.	B. L. Curtis, 120, London Wall, E.C.	do.
Additions to School, Abingdon	.....	J. G. T. West, Architect, The Knowl, Abingdon	June 25
*Workmen's Dwellings	Wrotham U.D.C.	J. Sharp, 5, Sunnyside, Borough Green	June 29
Additions to Asylum Buildings, Bodmin	Visiting Committee	S. Trevail, Architect, Truro	No date
Residence, Howgate, Brampton, Cumberland	Mr. W. Dobson	T. T. Scott, Architect, 43, Lowther-street, Carlisle	do.
Rebuilding Inn, near Harrogate	Mr. J. Whitworth	H. & A. Bown, Architects, Harrogate	do.
Rebuilding Sailors' Rest, Cardiff	Mr. J. Cory	Jones & Co., Architects, 18, St. Mary-street, Cardiff	do.
Tall Chimney, Clayton West, Yorks	.....	B. Beanland & Co., Clayton West, near Huddersfield	do.
Cottage, Edgefields Estate, Stoke-on-Trent	Mr. W. Heath	W. H. Walley, Architect, Queen-street, Burslem	do.
Villa, Weeton, Yorks	.....	M. E. Kirby, Architect, Huby, via Leeds	do.
Church and Schools, Pump-street, Worcester	.....	J. J. Green, Architect, 19, South John-street, Liverpool	do.
School, Providence-street	Salford School Board	J. B. Broadbent, Architect, 15, Cooper-street, Manchester	do.
Pair Cottages, Christchurch Park Estate, Ipswich	.....	J. S. Corder, Surveyor, Wimbourne House, Ipswich	do.
Chapel, Radstock, Somerset	.....	W. J. Willcox, Architect, 1, Belmont, Bath	do.
*Extensions to County Asylum Buildings	Cornwall County Asylum	See Advertisement	do.

PUBLIC APPOINTMENTS.

Nature of Appointment.	By whom Advertised.	Salary.	Application to be in
*Road Foreman	West Ham Borough Council	200*l.* per annum	June 18
*Assistant	Hull Corporation	110*l.* per annum	June 21
*Lecturer in Building Construction	Norwich Technical Institute	150*l.* per annum	June 22
*Chief Assistant	Warrington Corporation	175*l.* per annum	do.
*Assistant Sanitary Inspector	Willesden U.D.C.	100*l.* per annum	June 25

Those marked with an asterisk (*) are advertised in this Number. *Competitions, p.* iv. *Contracts, pp.* iv. vi. viii. x. & xxii. *Public Appointments, pp.* xix. & xxii.

Dalston.—56, Pownall-rd., r. 50*l.*; also i.g.r's 15*l.*, u.t. 42 yrs., g.r. 7*l.* 15s. £390
Islington.—6, 8, and 10, Oxford-rd., u.t. 19 yrs., g.r. 6*l.* 15s., r. 92*l.* 565
Clapton.—23, Median-rd., part f. and part u.t. 62¾ yrs., g.r. 6*l.* 6s., r. 33*l.* 310

By NOTT, CARTWRIGHT, AND ETCHES.

Westminster.—4, Vauxhall Bridge-rd., u.t. 30 yrs., g.r. 9*l.*, r. 65*l.* 545
Wandsworth.—30, Geraldine-rd., u.t. 77 yrs., g.r. 7*l.*, r. 35*l.* 380

By T. N. TURNER.

Greenwich.—Church-st., &c., f.g.r. 30*l.*, reversion in 56¼ yrs. 600

By REYNOLDS & EASON.

Clapton.—74, Blurton-rd., f., e.r. 38*l.* 550
98, Chatsworth-rd., f., r. 38*l.* 650
146 and 148, Chatsworth-rd., with workshop in rear, f., r. 91*l.* 12s. 1,260
140 and 142, Chatsworth-rd., u.t. 78 yrs., g.r. 14*l.*, r. 66*l.* 880
11 to 21 (odd), Sewdley-st., f. 2,385
New Southgate.—Beaconsfield-rd., Claremont, Northcote, and Templeogne, u.t. 78 yrs., g.r. 14*l.* 15s., r. 85*l.* 850
Leyton.—1 to 9 (odd), Buckland-rd., f. £1,275

By FREDERICK WARMAN.

Highbury.—45, Aberdeen Park, u.t. 54 yrs., g.r. 10*l.* 1,050
29, Highbury Quadrant, u.t. 49 yrs., g.r. 17*l.* 17s. 1,000
Leigh-rd., The Manor House, and South House, also the General Post Office Sorting Office and Parish Room adjoining, u.t. 78½ yrs., g.r. 50*l.*, r. 230*l.* 2,500
Manor-ter., i.g.r. 7*l.* u.t. 78½ yrs., g.r. nil. 137
Crouch End.—27, Cecile-pk., u.t. 80 yrs., g.r. 10*l.*, e.r. 52*l.* 10s. 525

By A. J. BURROWS (at Maidstone).

Offham, &c., Kent.—The Offham Court Lodge Estate, 178 a. 2 r. 9 p., f. (in lots) 5,090

May 31.—By JOHN BOTT & SONS.

Brixton.—70 to 80 (even), Saltoun-rd., u.t. 72 yrs., g.r. 37*l.* 16s., r. 246*l.* 2,400

By EASTMAN BROS.

Forest Hill.—157, Devonshire-rd., u.t. 67 yrs., g.r. 6*l.*, e.r. 34*l.* 270

By W. B. HALLETT.

Kentish Town.—Hamley-rd., i.g.r.'s 44*l.* 4s., u.t. 29½ yrs., g.r. 10s. 600
Leybourne-rd., &c., i.g.r.'s 38*l.* 17s., u.t. 29½ yrs., g.r. 10s. £560
Dulwich.—Farquhar-rd., &c., i.g.r.'s 248*l.* 10s., u.t. 36 yrs., g.r. 23*l.* 12s. 6d. 3,550

By VINCENT S. LEIGH.

Tottenham.—169, St. Ann's-rd., u.t. 68½ yrs., g.r. 10*l.* 10s., e.r. 45*l.* 320
Dalston.—100, Richmond-rd., u.t. 22 yrs., g.r. 6*l.* 245
Old Ford.—27 to 33 (odd), Ford-st., u.t. 62 yrs., g.r. 22*l.* 860
Clapton.—10, 12, 14, and 16, Maclaren-st., u.t. 78 yrs., g.r. 20*l.* 605

By MAY & PHILPOT.

Brixton.—25, Helix-rd., u.t. 89 yrs., g.r. 7*l.* e.r. 45*l.* 525
Streatham.—5, Netherwood-ter., f., r. 34*l.* 450

***Contractions used in these lists.*—F.g.r.** for freehold ground-rent; **l.g.r.** for leasehold ground-rent; **i.g.r.** for improved ground-rent; **g.r.** for ground-rent; **r.** for rent; **f.** for freehold; **c.** for copyhold; **l.** for leasehold; **e.r.** for estimated rental; **u.t.** for unexpired term; **p.a.** for per annum; **yrs.** for years; **st.** for street; **rd.** for road; **sq.** for square; **pl.** for place; **ter.** for terrace; **cres.** for crescent; **yd.** for yard.

PRICES CURRENT OF MATERIALS.

*** Our aim in this list is to give, as far as possible, the *average* prices of materials, not necessarily the lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information.

BRICKS, &c.

	£ s. d.			
Hard Stocks	1 14 0	per 1,000	alongside,	in river
Rough Stocks and Grizzles	1 11 0	,,	,,	,,
Facing Stocks	2 8 0	,,	,,	,,
Shippers	2 8 0	,,	,,	,,
Flettons	1 8 6	,,	at railway	depot.
Red Wire Cuts	1 14 6	,,	,,	,,
Best Fareham Red	3 11 0	,,	,,	,,
Best Red pressed Ruabon Facing	5 5 0	,,	,,	,,
Best Blue Pressed Staffordshire	4 4 6	,,	,,	
Do., Bullnose	4 9 0	,,	,,	,,
Best Stourbridge Fire Bricks	4 2 6	,,	,,	,,
GLAZED BRICKS.				
Best White and Ivory Glazed Stretchers	13 0 0	,,	,,	,,
Headers	12 0 0	,,	,,	,,
Quoins, Bullnose, and Flats	17 0 0	,,	,,	,,
Double Stretchers	19 0 0	,,	,,	,,
Double Headers	16 0 0	,,	,,	,,
One Side and two Ends	19 0 0	,,	,,	,,
Two Sides and one End	20 0 0	,,	,,	,,
Splays, Chamfered, Squints	20 0 0	,,	,,	,,
Best Dipped Salt Glazed Stretchers and Headers	12 0 0	,,	,,	,,
Quoins, Bullnose, and Flats	14 0 0	,,	,,	,,
Double Stretchers	15 0 0	,,	,,	,,
Double Headers	14 0 0	,,	,,	,,
One Side and two Ends	15 0 0	,,	,,	,,
Two Sides and one End	15 0 0	,,	,,	,,
plays, Chamfered, Squints	14 0 0	,,	,,	,,
Seconds Quality White and Dipped Salt Glazed	2 0 0	,,	less than best	

	s. d.		
Thames and Pit Sand	7 3	per yard,	delivered.
Thames Ballast	6 0	,,	,,
Best Portland Cement	36 0	per ton,	delivered.
Best Ground Blue Lias Lime	25 6	,,	,,

NOTE.—The cement and lime is exclusive of the ordinary charge for sacks.

Grey Stone Lime	13s 6d.	per yard, delivered
Stourbridge Fire-clay in sacks	28s. od.	per ton at rly. dpt.

STONE.

	s. d.		
Ancaster in blocks	2 0	per ft. cube, deld. rly.	depôt.
Bath ,,	1 7	,,	,,
Farleigh Down Bath	1 8	,,	,,
Beer in blocks	1 6½	,,	,,
Grinshill ,,	1 10	,,	,,
Brown Portland in blocks	2 2	,,	,,
Darley Dale in blocks	2 1½	,,	,,
Red Corsehill ,,	2 5	,,	,,
Red Mansfield ,,	2 4½	,,	,,
Hard York in blocks	2 10	,,	,,
Hard York 6 in. sawn both sides landings, to sizes (under 40 ft. sup.)	2 8	per ft. super.	at rly. depôt
,, ,, 6 in. Rubbed Ditto	3 0	,,	,,
,, ,, 3 in. sawn both sides slabs (random sizes)	1 3	,,	,,
,, ,, 3 in. self-faced Ditto	0 9½	,,	,,

SLATES.

in. in.	£ s. d.		
20X10 best blue Bangor	11 5 0	per 1000 of 1200	at ry. dep.
,, best seconds ,,	10 15 0	,,	,,
16X 8 best ,,	6 2 6	,,	,,
20X10 best blue Portmadoc	10 18 0	,,	,,
16X 8 best blue Portmadoc	6 0 0	,,	,,
20X10 best Eureka unfading green	11 2 6	,,	,,
16X 8 ,, ,,	6 15 0	,,	,,
20X10 Permanent green	10 0 0	,,	,,
16X 8 ,, ,,	5 12 6	,,	,,

TILES.

	s. d.			
Best plain red roofing tiles	41 6	per 1,000	at rly.	depôt.
Hip and valley tiles	3 7	per doz.	,,	,,
Best Broseley tiles	48 6	per 1,000	,,	,,
Hip and valley tiles	4 0	per doz.	,,	,,
Best Ruabon Red, brown or brindled Do. (Edwards)	57 6	per 1,000	,,	,,
Do. ornamental Do.	60 0	,,	,,	,,
Hip tiles	4 0	per doz.	,,	,,
Valley tiles	3 9	,,	,,	,,
Best Red or Mottled Staffordshire Do. (Peakes)	50 9	per 1,000	,,	,,
Hip tiles	4 1	per doz.	,,	,,
Valley tiles	3 8	,,	,,	,,

WOOD.

BUILDING WOOD.—YELLOW.

	At per standard. £ s. d.	£ s. d.
Deals: best 3 in. by 11 in. and 4 in. by 9 in. and 11 in.	16 10 0	18 0 0
Deals: best 3 by 9	14 10 0	15 10 0
Battens: best 2½ in. by 7 in. and 8 in. and 3 in. by 7 in. and 8 in.	12 0 0	13 0 0
Battens: best 2½ by 6 and 3 by 6	0 10 0	less than 7 in. and 8 in.
Deals: seconds	1 0 0	less than best
Battens: seconds	0 10 0	,, ,, ,,
2 in. by 4 in. and 2 in. by 6 in.	9 10 0	11 0 0
2 in. by 4½ in. and 2 in. by 5 in.	9 0 0	10 10 0
Foreign Sawn Boards— 1 in. by 1½ in. by 1½ in.	10 0	more than battens.
¾ in.	1 0 0	more than battens.

PRICES CURRENT (*Continued*).

WOOD.

	At per load of 50 ft. £ s. d.	£ s. d.
Fir timber: Best middling Danzig or Memel (average specification)	4 10 0	5 0 0
Seconds	4 5 0	4 10 0
Small timber (8 in. to 10 in.)	3 12 6	3 15 0
Swedish balks	2 15 0	3 0 0
Pitch pine timber (35 ft. average)	3 10 0	4 0 0
JOINERS' WOOD.	At per standard.	
White Sea: First yellow deals, 3 in. by 11 in.	27 10 0	28 10 0
3 in. by 9 in.	24 0 0	25 0 0
Battens, 2½ in. and 3 in. by 7 in.	20 0 0	21 0 0
Second yellow deals, 3 in. by 11 in.	22 10 0	24 0 0
,, ,, 3 in. by 9 in.	20 0 0	21 0 0
Battens, 2½ in. and 3 in. by 7 in.	16 10 0	18 0 0
Third yellow deals, 3 in. by 11 in. and 9 in.	16 10 0	18 0 0
Battens, 2½ in. and 3 in. by 7 in.	13 10 0	14 10 0
Petersburg: first yellow deals, 3 in. by 11 in.	25 0 0	26 0 0
Do. 3 in. by 9 in.	22 0 0	23 0 0
Battens	16 10 0	17 10 0
Second yellow deals, 3 in. by 11 in.	18 10 0	20 0 0
Do. 3 in. by 9 in.	17 0 0	18 0 0
Battens	14 0 0	14 10 0
Third yellow deals, 3 in. by 11 in.	15 0 0	16 10 0
Do. 3 in. by 9 in.	14 0 0	14 10 0
Battens	12 10 0	13 10 0
White Sea and Petersburg:— First white deals, 3 in. by 11 in.	15 10 0	16 10 0
,, ,, ,, 3 in. by 9 in.	14 10 0	15 10 0
Battens	12 10 0	13 10 0
Second white deals 3 in. by 11 in.	14 0 0	15 0 0
,, ,, ,, 3 in. by 9 in.	13 0 0	14 0 0
,, ,, battens	11 0 0	12 0 0
Pitch pine: deals	16 0 0	18 0 0
Under 2 in. thick extra	0 10 0	1 0 0
Yellow Pine— First, regular sizes	30 0 0	33 0 0
Broads (12 in. and up)	2 0 0	more.
Oddments	22 0 0	24 0 0
Seconds, regular sizes	24 10 0	26 10 0
Yellow Pine Oddments	20 0 0	22 0 0
Kauri Pine— Planks, per ft. cube	0 3 6	0 4 6
Danzig and Stettin Oak Logs— Large, per ft. cube	0 2 6	0 3 0
Small ,, ,,	0 2 3	0 2 6
Wainscot Oak Logs, per ft. cube	0 5 0	0 5 6
Dry Wainscot Oak, per ft. sup. as inch	0 0 8	0 0 7
in. do. do.	0 0 7	- - -
Dry Mahogany— Honduras, Tabasco, per ft. sup. as inch	0 0 9	0 0 11
Selected, Figury, per ft. sup. as inch	0 1 6	0 2 0
Dry Walnut, American, per ft. sup. as inch	0 0 10	0 1 0
Teak, per load	16 0 0	20 0 0
American Whitewood Planks— Per ft. cube	0 2 3	0 3 0

Prepared Flooring—	Per square.	
1 in. by 6 in. and 7 in. yellow, planed and shot	0 13 0	0 16 6
1 in. by 6 in. and 7 in. yellow, planed and matched	0 13 6	0 17 6
1¼ in. by 6 in. and 7 in. yellow, planed and matched	0 16 0	1 1 0
1 in. by 6 in. and 7 in. white, planed and shot	0 11 0	0 13 0
1 in. by 6 in. and 7 in. white, planed and matched	0 11 6	0 13 6
1¼ in. by 6 in. and 7 in. white, planed and matched	0 14 0	0 16 6

JOISTS, GIRDERS, &c.

	In London, or delivered to Railway Vans, per ton. £ s. d.	£ s. d.
Rolled Steel Joists, ordinary sections	7 15 0	8 15 0
Compound Girders ,, ,,	9 10 0	10 15 0
Angles, Tees and Channels, ordinary sections	9 7 6	11 7 6
Flitch Plates	9 15 0	10 10 0
Cast Iron Columns and Stanchions, including ordinary patterns	8 5 0	10 0 0

METALS.

	Per ton, in London. £ s. d.	£ s. d.
IRON.— Common Bars	8 10 0	9 0 0
Staffordshire Crown Bars, good merchant quality	9 0 0	9 10 0
Staffordshire "Marked Bars"	11 10 0	- - -
Mild Steel Bars	9 0 0	10 0 0
Hoop Iron, basis price	9 10 0	10 0 0
,, ,, galvanised	16 0 0	- - -
(* And upwards, according to size and gauge.)		
Sheet Iron, Black.— Ordinary sizes to 20 g.	10 5 0	- - -
,, ,, to 24 g.	11 10 0	- - -
,, ,, to 26 g.	12 15 0	- - -
Sheet Iron, Galvanised, flat, ordinary quality.— Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 20 g.	12 15 0	- - -
,, ,, 22 g. and 24 g.	13 5 0	- - -
,, ,, 26 g.	14 10 0	- - -
Sheet Iron, galvanised, flat, best quality.— Ordinary sizes to 20 g.	16 10 0	- - -
,, ,, 22 g. and 24 g.	17 0 0	- - -
,, ,, 26 g.	18 10 0	- - -
Galvanised Corrugated Sheets.— Ordinary sizes, 6 ft. to 8 ft. 20 g.	12 15 0	- - -
,, ,, 22 g. and 24 g.	13 5 0	- - -
,, ,, 26 g.	14 0 0	- - -
Best Soft Steel Sheets, 6 ft. by 2 ft. to 3 ft. by 20 g. and thicker	12 10 0	- - -
,, ,, 22 g. and 24 g.	13 10 0	- - -
,, ,, 26 g.	14 10 0	- - -
Cut nails, 3 in. to 6 in. (Under 3 in. usual trade extras.)	10 10 0	- - -

PRICES CURRENT (*Continued*).

METALS.

	Per ton, in London. £ s. d.	£ s. d.
LEAD—Sheet, English, 3 lbs. & up.	15 5 0	- - -
Pipe in coils	15 15 0	- - -
Soil Pipe	18 5 0	- - -
ZINC—Sheet— Vieille Montagne ton	24 0 0	- - -
Silesian	23 10 0	- - -
COPPER— Strong Sheet per lb.	0 1 0½	- - -
Thin ,,	0 1 2	- - -
Copper nails ,,	0 1 2	- - -
BRASS— Strong Sheet ,,	0 0 11	- - -
Thin ,,	0 1 1	- - -
TIN—English Ingots ,,	0 1 4	- - -
SOLDER—Plumbers' ,,	0 0 7	- - -
Tinmen's ,,	0 0 8	- - -
Blowpipe ,,	0 0 9	- - -

ENGLISH SHEET GLASS IN CRATES.

15 oz. thirds	3d.	per ft.	delivered.
,, fourths	2½d.	,,	,,
21 oz. thirds	3½d.	,,	,,
,, ,, fourths	3¾d.	,,	,,
26 oz. thirds	5d.	,,	,,
,, ,, fourths	4½d.	,,	,,
32 oz. thirds	6d.	,,	,,
,, ,, fourths	5½d.	,,	,,
Fluted sheet, 15 oz.	3½d.	,,	,,
,, ,, 21 ,,	4½d.	,,	,,
½ Hartley's Rolled Plate	3d.	,,	,,
⅜ ,, ,, ,,	3½d.	,,	,,
½ ,, ,, ,,	4d.	,,	,,

OILS, &c.

		£ s. d.
Raw Linseed Oil in pipes	per gallon	0 3 0
,, ,, ,, in barrels	,,	0 3 1
,, ,, ,, in drums	,,	0 3 3
Boiled ,, ,, in pipes	,,	0 3 2
,, ,, ,, in barrels	,,	0 3 3
,, ,, ,, in drums	,,	0 3 5
Turpentine, in barrels	,,	0 2 5
,, in drums	,,	0 2 7
Genuine Ground English White Lead	per ton	23 10 0
Red Lead, Dry	,,	24 0 0
Best Linseed Oil Putty	per cwt.	0 9 0
Stockholm Tar	per barrel	1 10 0

VARNISHES, &c.

	per gallon £ s. d.
Fine Elastic Copal Varnish for outside work	0 16 6
Best Elastic Copal Varnish for outside work	1 0 0
Best Elastic Carriage Varnish for outside work	0 16 6
Best Hard Oak Varnish for inside work	0 10 6
Best Extra Hard Church Oak Varnish for inside work	0 10 6
Fine Hard Copal Varnish for inside work	0 16 0
Best Hard Copal Varnish for inside work	1 0 0
Best Hard Carriage Varnish for inside work	0 16 0
Extra Pale Paper Varnish	0 12 0
Best Japan Gold Size	0 10 0
Best Black Japan	0 16 0
Oak and Mahogany Stain	0 9 0
Brunswick Black	0 9 0
Berlin Black	0 15 0
Knotting	0 10 0
Best French and Brush Polish	0 10 0

TO CORRESPONDENTS.

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[Communications for insertion under this heading should be addressed to "The Editor," and must reach us *not later than 10 a.m. on Thursdays.* N.B.—We cannot publish tenders unless authenticated either by the architect or the building-owner; and we cannot publish announcements of tenders accepted unless the amount of the tender is given, nor any list in which the lowest tender is under £100, unless in some exceptional cases and for special reasons.]

* Denotes *accepted.* † Denotes *provisionally accepted.*

BOLNEY (Sussex).—For alterations and additions at Bolney Grange, for Mr. E. Roberts. Mr. W. C. F. Gillam, architect, Brighton:—

H. J. Penfold	£2,259	Kemp & Son	£1,685
Field & Co.	1,899	Brockway, Burgess	
Awcock	1,779	Hill†	1,620
Hackman, Ltd.	1,775		

BRACKNELL.—For additions, &c., to the Forest Hotel, Bracknell, Berkshire, for Mr. Samuel Raven. Mr. Richard Dickinson, architect, 5, John-street, Adelphi, Strand, W.C.:—

Gould & Brand	£8,050	Norris & Son	£6,950
W. Watson	7,985	Courtney & Fairbairn	6,751
Bottrill & Son	7,842	J. Brown	6,741
H. Charman	7,150	W. J. May*	6,250
Spear & King	7,075		

BRIGHTON.—For alterations and additions at No. 5, Powis-road, for Mr. A. G. Sharman. Mr. W. C. F. Gillam, architect, Brighton:—

A. Smart	£235 0	Saunders Bros.	£207 0
S. H. Diplock	235 0	Lynn & Sons*	193 0
H. J. Penfold	207 0	Brown & Sons	192 12

[*See also next page.*

LONDON.—For electricity and destructor station for the Borough of Woolwich :—

	Foundations.	Station.	Total.	Extra if Portland stone.	Saving if Terra-cotta.
E. Proctor	£8,229	£39 518	£47,747	—	£524 0 0
D. Gibb & Co.	7,052	38,300	45,352	£110 0 0	416 0 0
Martin, Wells, & Co.	6,984	38,074	45,058	313 0 0	216 0 0
W. Lawrence & Son	6,999	37,999	44,998	100 0 0	400 0 0
Foster Bros.	7,087	37,760	44,847	—	400 0 0
J. Parnell & Son	6,800	37,300	44,100	120 0 0	380 0 0
Leslie & Co., Ltd.	6,384	37,641	44,025	36 0 0	596 0 0
Thomas & Edge	6,727	37,108	43,835	100 0 0	400 0 0
T. D. Leng	6,920	36,650	43,570	120 0 0	394 0 0
H. L. Holloway	6,500	35,990	42,490	—	440 0 0
J. Chessum & Sons	6,480	35,336	41,816	220 10 0	220 0 0
J. E. Johnson & Son	7,710	33 589	41,299	175 7 3	178 2 8
T. G. Minter	7,107	33,568	40,975	100 0 0	470 0 0
Smith & Son, London*	6,437	34,137	40,574	—	400 0 0

BRIGHTON.—For alterations and additions at No. 43, Dyke-road, for Messrs. Beckwith. Mr. W. C. F. Gillam, architect, Brighton :—

Brown & Sons	£775	Penfold	£657
Field & Co.	774	Diplock	655
J. Barnes	765	Smart*	600
Saunders Bros.	659		

EASTBOURNE.—For the Sanatorium extension, for the Borough of Eastbourne. Mr. Wm. Chapman Field, Borough Architect, Eastbourne :—

	Original Estimate.	Deductions.	Amended Total.
	£	£	£
Gregar & Co.	9,444	1,009	8,435
Johnson & Co.	9,443	1,191	8,252
J. C. Lacey	8,862	922	7,940
Tapner & Co.	8,364	641	7,723
Martin, Wells & Co.	8,669	990	7,679
C. Peerless Dennis	8,483	1,167	7,316
Mark Hookham, Eastbourne*	7,990	882	7,108

EASTBOURNE.—For alterations to Town Hall, Eastbourne. Mr. W. Chapman Field, Borough Architect :—

T. Glover	£320 0	W. Llewellyn	£249 0
C. P. Dennis	263 0	Mark Hookham*	216 12
Cole & Son	250 18		

[All of Eastbourne.]

LONDON.—For the erection of shops and offices, Middlesex-street, E.C. Messrs. Dale & Gadsdon, architects, 8, Union-court, Old Broad-street, E.C. :—

Symes	£4,740	Williams	£4,587
Adamson	4,710	Perry Bros.	4,557
Hoare & Son	4,670	Sharpe*	4,452
Gladding	4,650		

SANDGATE (Kent).—For the erection of stores, cart-shed, and entrance gates, for the Urban District Council. Mr. A. Robert Bowles, Surveyor to the Council. Quantities by Mr. Alfred R. Evans, 8, St. Martin's-place, W.C. :—

W. J. Haisell	£707 6	Hayward & Paramor	£595 0
J. Hogben	697 0	T. L. Fearon, Folkestone*	570 0
Turner & Co.	660 0	Lisle & Skinner	533 0
W. Pearce	649 0		
Simpson & Berwick	626 0		
Castle & Sons	600 0		

STEYNING.—For the erection of a pair of villas, for Mr. W. P. Breach. Mr. F. Slaughter, architect, Steyning and Shoreham. Quantities by architect :—

Yates	£1,159 0	Elms	£923 0
Roberts	1,057 10	Chalcraft	873 0
Field & Co.	976 0	Blandford*	850 0
Curd	960 0		

WALTHAMSTOW.—For erection of shops and office premises, Wood-street, Walthamstow, for the Charity Trustees. Mr. W. A. Longmore, architect, Bridge-chambers, Walthamstow :—

J. Holliday	£6,200	S. J. Scott	£3,593
West, Bros., & Pettit	4,300	Sands, Palmer, & Co.	3,550
Snewin Bros.	4,193	A. Hood	3,323
F. Padley	4,000	G. Barker	3,275
F. Parsons	4,000	F. Penn	3,200
R. & E. Evans	3,938	Ridgeway & Sons*	2,969
D. T. Baker	3,696	J. & J. Dean	2,850

WEST BRIDGFORD (Notts).—For additions to church, Lady Bay. Mr. William R. Gleave, architect, 18, Low Pavement, Nottingham. Quantities by architect :—
W. & J. Simons, Nottingham* £399

WEST BRIDGFORD (Notts).—For pair of houses, Millicent-road. Mr. William R. Gleave, architect, 18, Low Pavement, Nottingham. Quantities by architect :—
W. & J. Simons, Nottingham* £855

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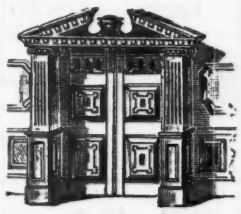

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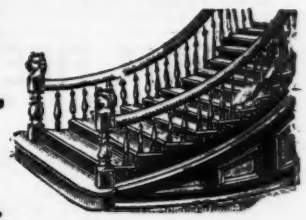

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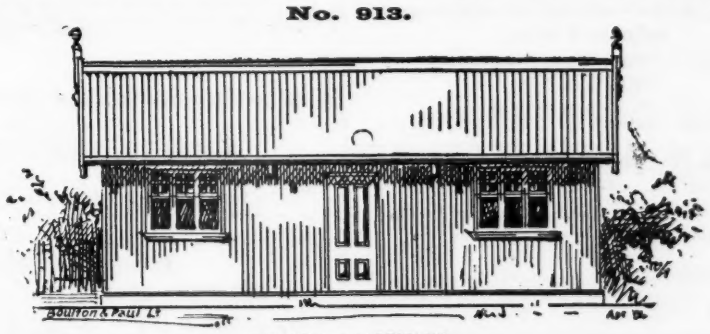

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Special Prize	—	—	1897	1898	1899	—	1901
Driver Prize	1895	1896	—	1898	1899	1900	1901
Penfold Silver Medal	1895	1896	—	1898	1899	1900	1901
Penfold Gold Medal	—	—	—	—	1899	1900	—
Crawter Prize	—	—	—	1898	—	—	1901

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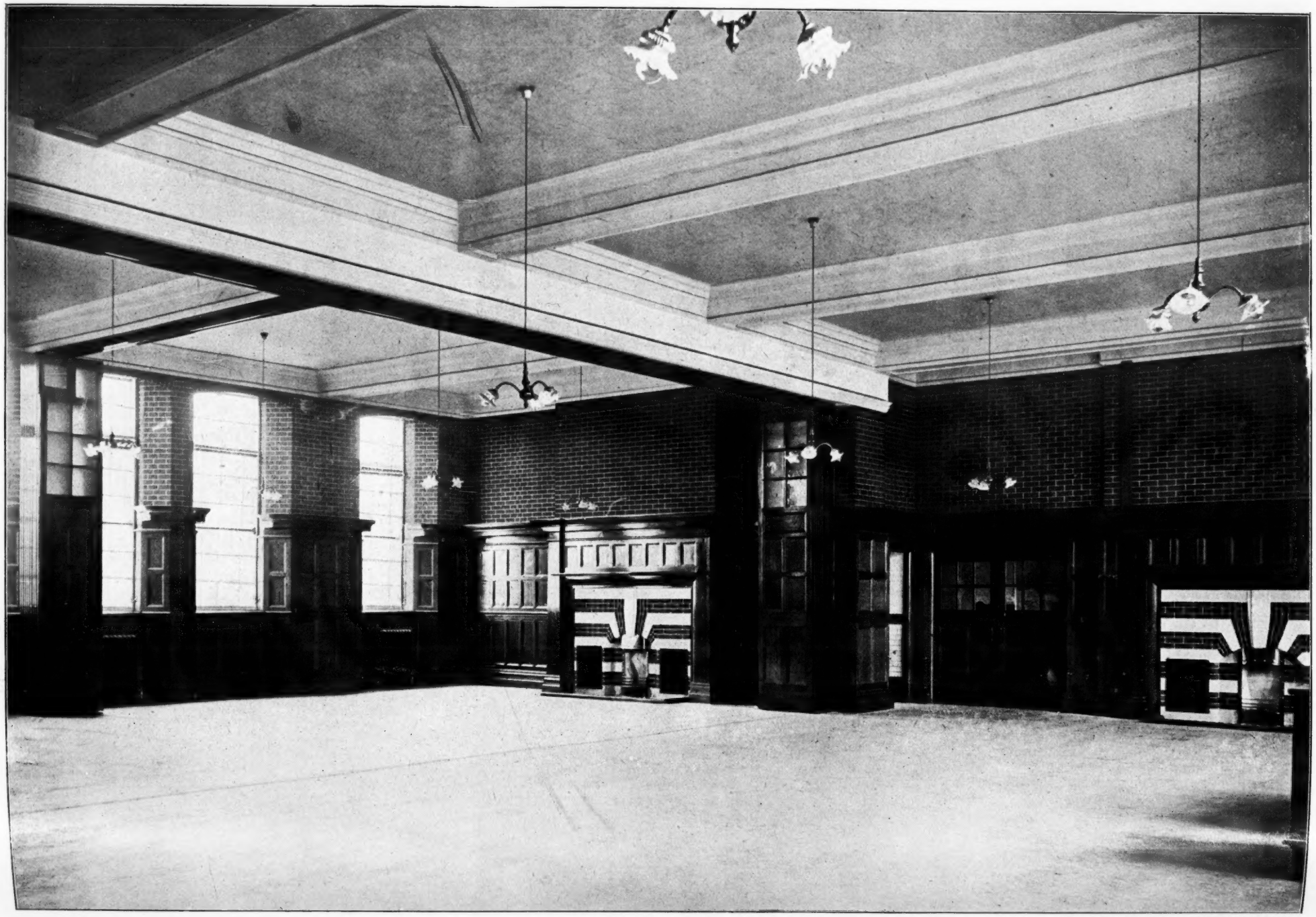

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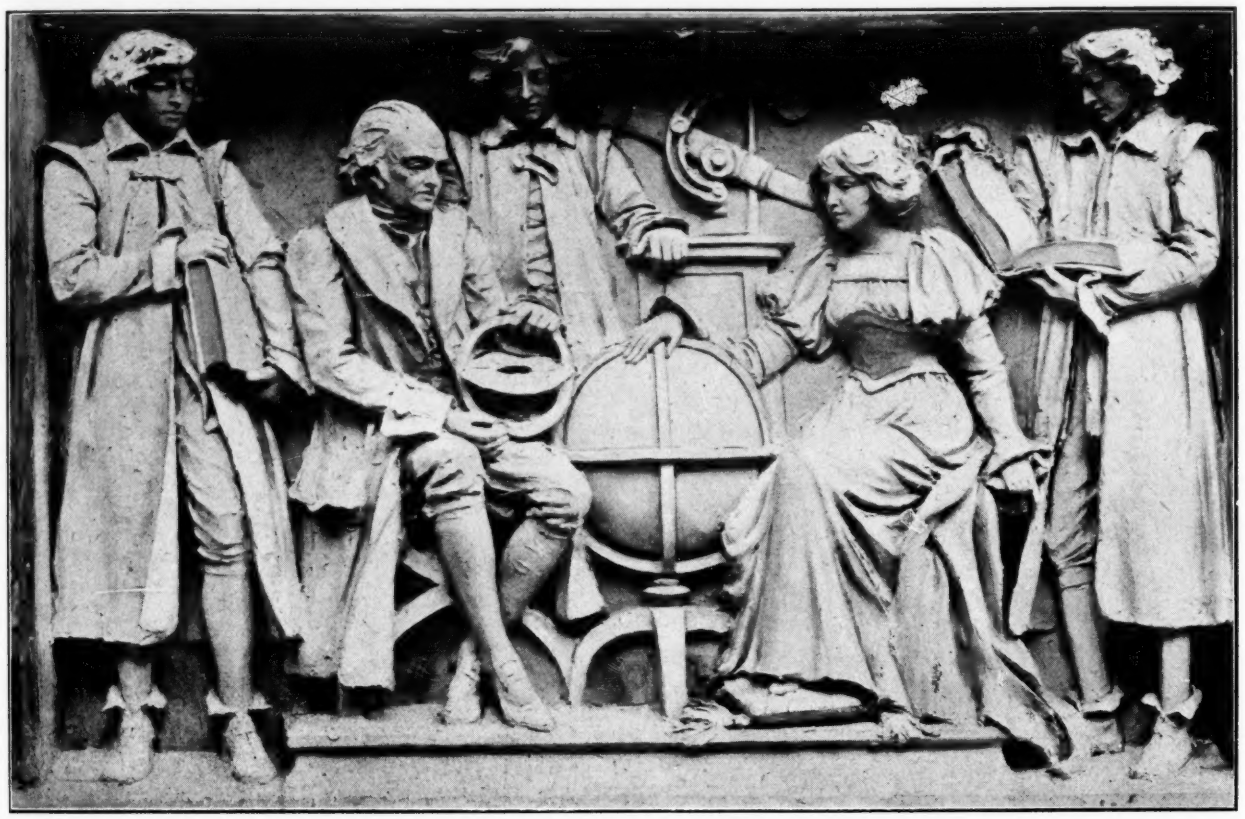

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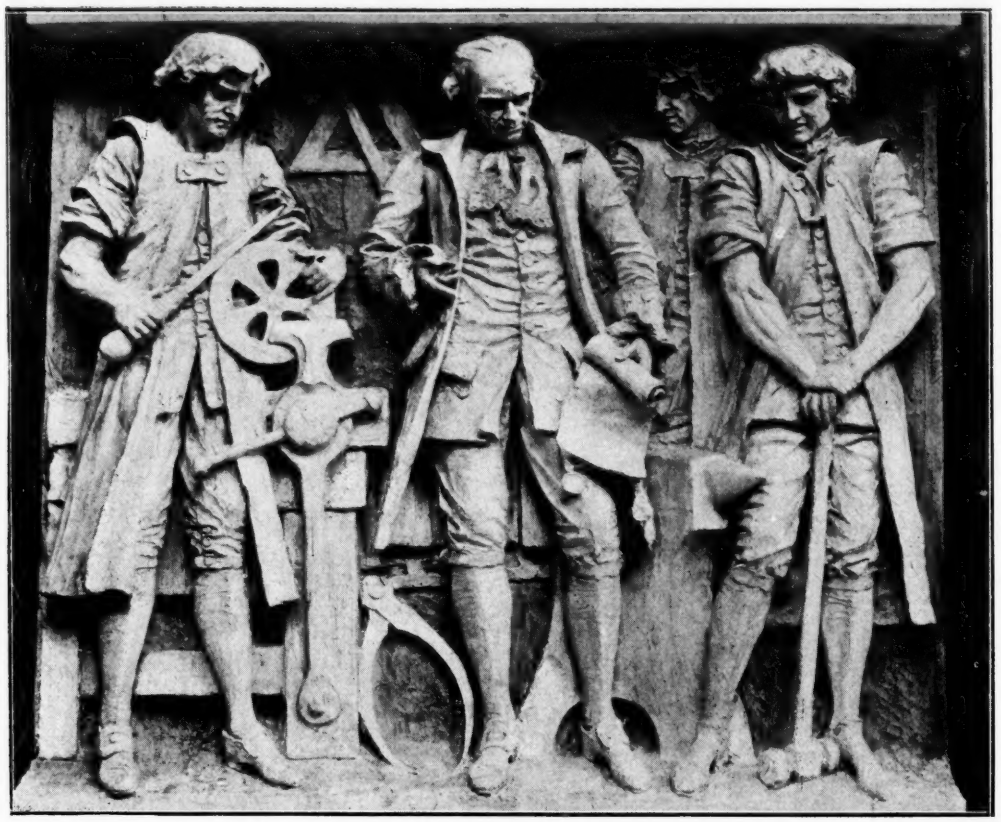

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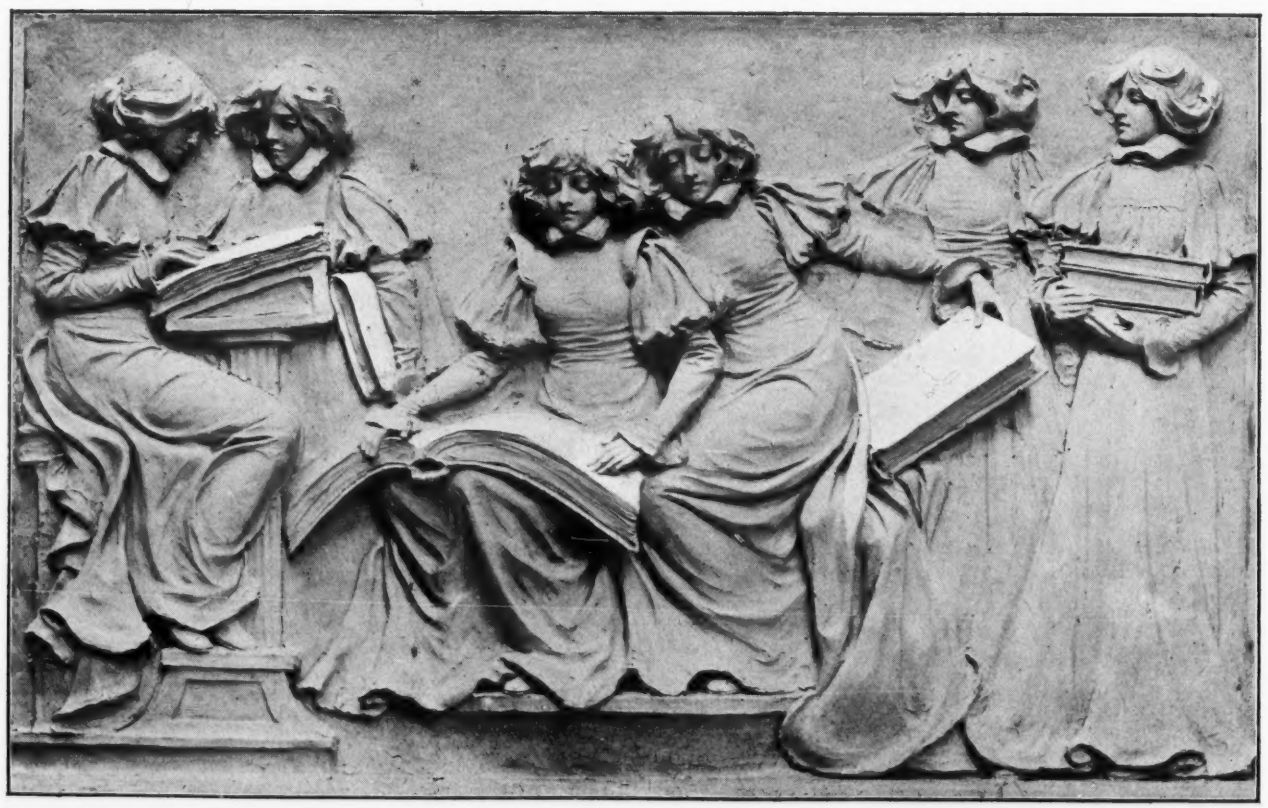

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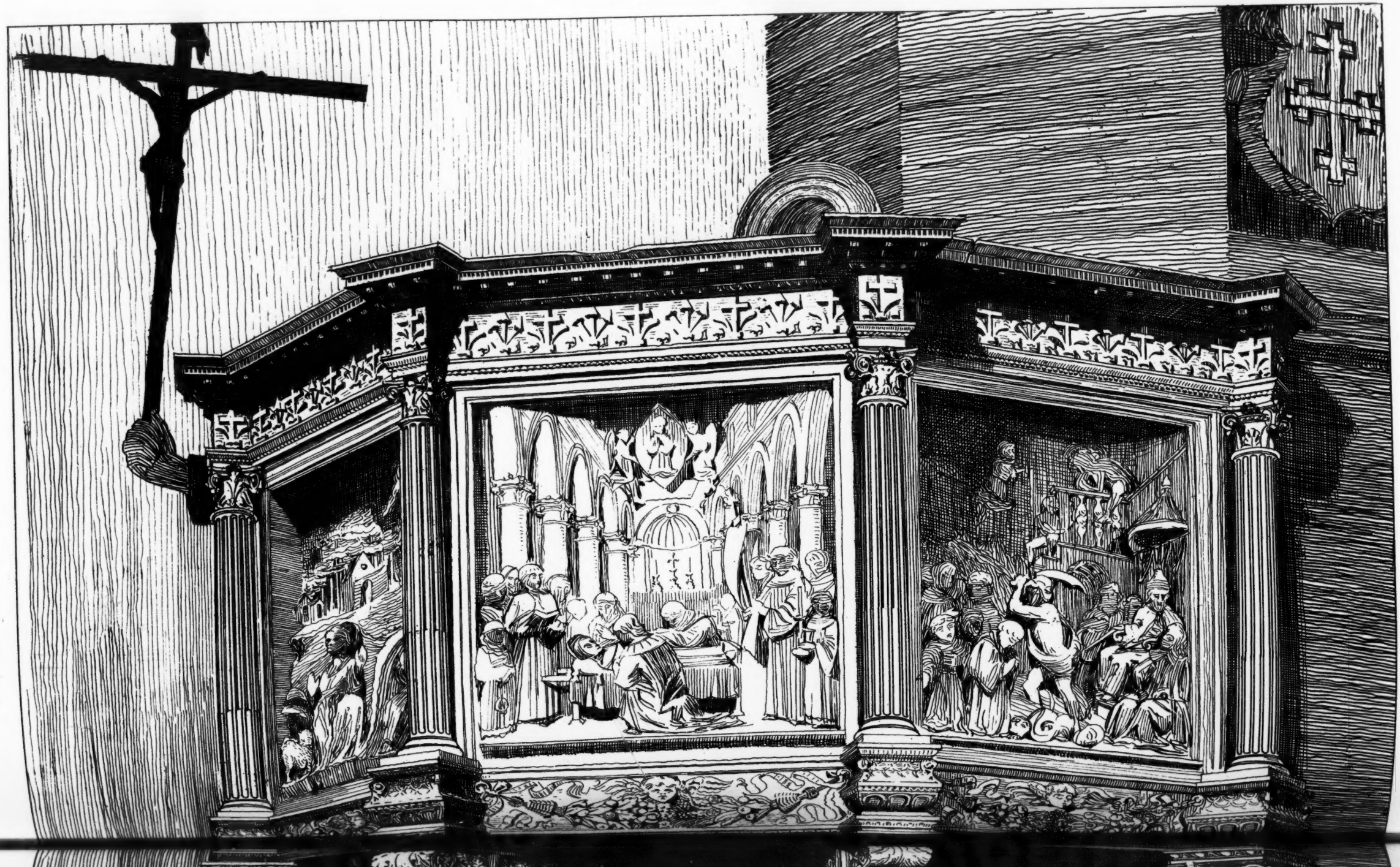

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